PMC-R30L

SERVICE MANUAL

AEP Model
UK Model

Ver 1.0 1999. 07

CD Section	Model Name Using Similar Mechanism	PMC-107L
	CD Mechanism Type	KSM-213CDM
	Optical Pick-up Name	KSS-213C
TC Section	Model Name Using Similar Mechanism	PMC-107L
	Tape Transport Mechanism Type	MF-107

SPECIFICATIONS

CD player section

System
Compact disc digital audio system
Laser diode properties
Material: GaAlAs
Wave length: 780 nm
Emission duration: Continuous
Laser output: Less than 44.6 µW
(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)
Spindle speed
200 r/min (rpm) to 500 r/min (rpm) (CLV)
Number of channels
2
Frequency response
20 - 20,000 Hz +1/–2 dB
Wow and flutter
Below measurable limit

Radio section

Frequency range

FM	87.5 - 108 MHz
MW	531 - 1,602 kHz
LW	153 - 279 kHz

IF
FM: 10.7 MHz
MW/LW: 450 kHz
Aerials
FM: External aerial terminal
MW/LW: External aerial terminal

Cassette-corder section

Recording system
4-track 2 channel stereo
Fast winding time
Approx. 120 s (sec.) with Sony cassette C-60
Frequency response
TYPE I (normal): 70 - 10,000 Hz

General

Speaker
Full range: 10 cm dia.,
3 ohms, cone type (2)
Outputs
Headphones jack (stereo minijack)
For 16 - 68 ohms impedance headphones
Maximum power output
4.5 W + 4.5 W
Power requirements
For personal component system:
230 V AC, 50 Hz
For remote control:
3 V DC, 2 R6 (size AA) batteries
Power consumption
AC 23 W

– Continued on next page –

PERSONAL COMPONENT SYSTEM

MICROFILM

SONY®

Dimensions (incl. projecting parts)
Player: Approx. 160 × 249 × 227 mm (w/h/d)
Speaker: Approx. 150 × 245 × 192 mm (w/h/d)
Mass
Player: Approx. 2.8 kg
Speaker: Approx. 1.2 kg
Supplied accessories
Remote control RMT-C107AD (1)
FM lead aerial (1)
MW/LW loop aerial (1)

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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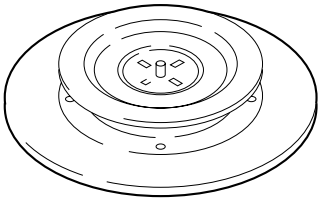
SECTION 1
SERVICING NOTES

CHUCK PLATE JIG ON REPAIRING

On repairing CD section, playing a disc without the lid (CD), use Chuck Plate Jig.
• Code number of Chuck Plate Jig: X-4918-255-1



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

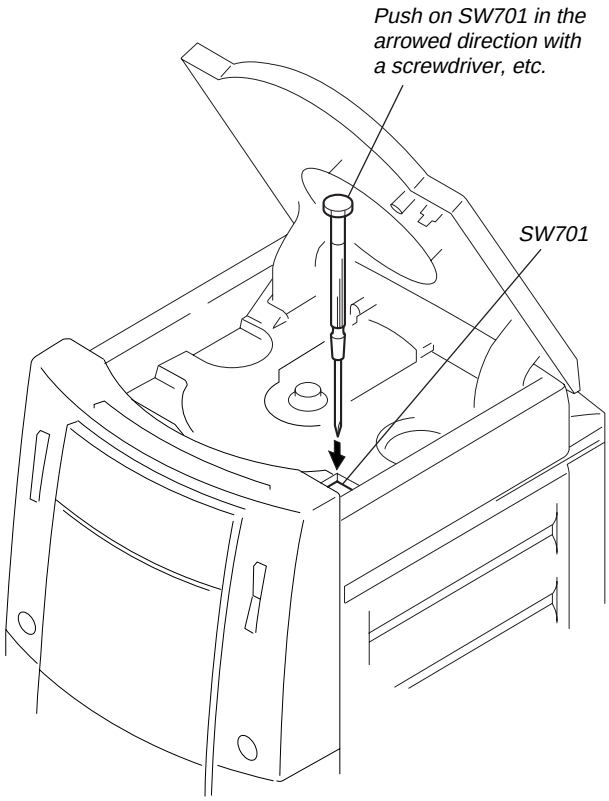
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT table is location on the rear exterior.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

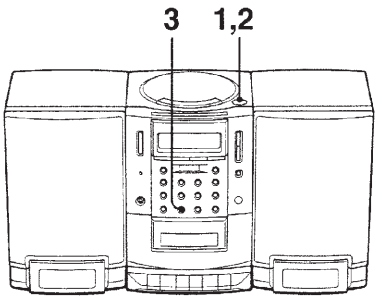
1. Open the CD lid.
2. Turn OPERATE switch on with to set the CD.
3. Turn on SW701 as following figure.
4. Press the ▶II (CD) button.
5. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down three times for focus search.



SECTION 2
GENERAL

This section is extracted from instruction manual.

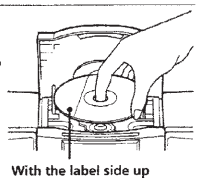
Playing a CD



For hookup instructions, see pages 25 - 26.

1

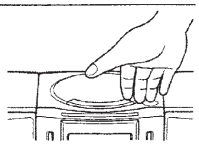
Press ⏏PUSH OPEN/CLOSE down to open the CD compartment and place the CD on the CD compartment.



With the label side up

2

Close the lid of the CD compartment.

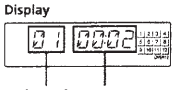


3

Press ►II (► on the remote) (direct power-on).

The player plays all the tracks once.

Display

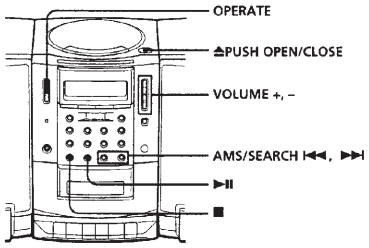


Track number Playing time

Tip

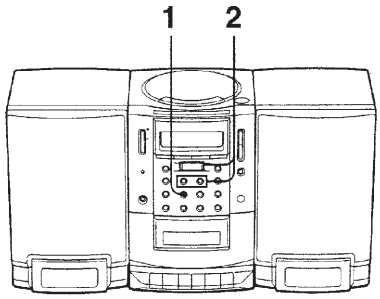
Next time you want to listen to a CD, just press ►II. The player turns on automatically and starts playing the CD.

Use these buttons for additional operations



To	Press
adjust the volume	VOLUME +, – (VOL +, – on the remote)
stop playback	■
pause playback	►II (II on the remote) Press the button again to resume play after pause.
go to the next track	AMS/SEARCH ►►I
go back to the previous track	AMS/SEARCH I◄◄
remove the CD	⏏PUSH OPEN/CLOSE
turn on/off the player	OPERATE

Listening to the radio

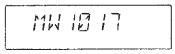


For hookup instructions, see pages 25 - 26.

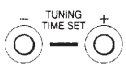
1

Press BAND until the band you want appears in the display (direct power-on).

Display

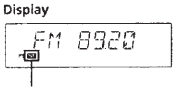


2



Hold down TUNING•TIME SET + or – (TUNE + or – on the remote) until the frequency digits begin to change in the display.

Display

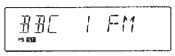


Indicates an FM stereo broadcast.

The player automatically scans the radio frequencies and stops when it finds a clear station.

If you can't tune in a station, press the button repeatedly to change the frequency step by step.

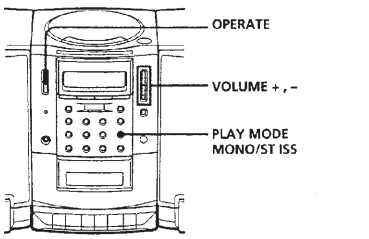
When you tune in an FM station that provides RDS (Radio Data System) services, the name of the station appears in the display and "R•D•S" indicator lights up.



Tips

- If the FM broadcast is noisy, press PLAY MODE•MONO/ST ISS until "MONO" appears in the display and the radio will play in monaural.
- Next time you want to listen to the radio, just press BAND. The player turns on automatically and starts playing the previous station.
- RDS is available only on FM stations.
- To display the frequency when the station name is shown in the display, press DSPL ENT MEM to make "PS" disappears from the display.
- If the reception of RDS is weak or has poor quality, "R•D•S" indicator will go off.

Use these buttons for additional operations



To	Press
adjust the volume	VOLUME +, – (VOL +, – on the remote)
turn on/off the radio	OPERATE

To improve broadcast reception

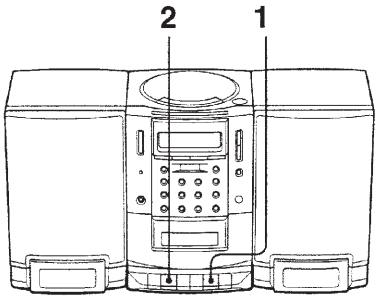
FM

Keep the FM lead aerial (supplied) as horizontal as possible (see page 26).

MW/LW

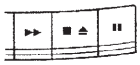
Keep the MW/LW loop aerial (supplied) away as far as possible from the player and then reorient the aerial (see page 26).

Playing a tape



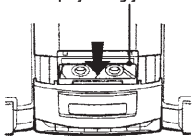
For hookup instructions, see pages 25 - 26.

1

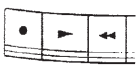


Press ■⏏ to open the tape compartment and insert a recorded tape. Use TYPE I (normal) tape only. Close the compartment.

With the side you want to play facing you



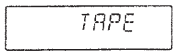
2



Press ►.

The player turns on (direct power-on) and starts playing.

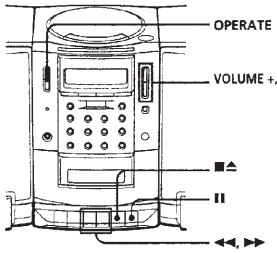
Display



Tip

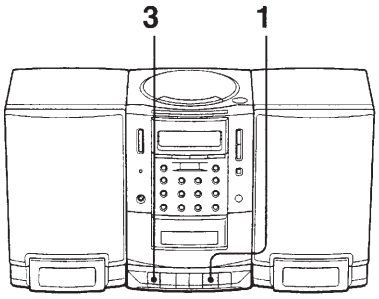
Next time you want to listen to a tape, just press ►. The player turns on automatically and starts playing the tape.

Use these buttons for additional operations



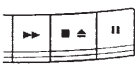
To	Press
adjust the volume	VOLUME +, – (VOL +, – on the remote)
stop playback	■⏏
fast-forward or rewind the tape	►►, ◄◄
pause playback	II Press the button again to resume play after pause.
eject the cassette	■⏏
turn on/off the player	OPERATE

Recording on a tape



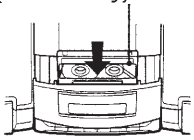
For hookup instructions, see pages 25 - 26.

1



Press ■⏏ to open the tape compartment and insert a blank tape. Use TYPE I (normal) tape only.

With the side you want to record on facing you

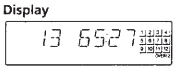


2

Select the program source you want to record.

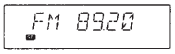
To record from the CD player, insert a CD (see page 4) and press ■ on the CD section.

Display

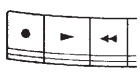


BAND

To record from the radio, tune in the station you want (see page 6).



3

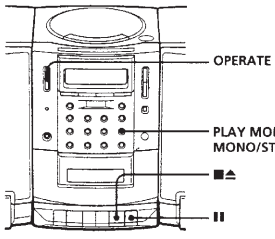


Press ● to start recording.
(► is depressed automatically.)

Tips

- Adjusting the volume or the audio emphasis (see page 27) will not affect the recording level.
- If the MW/LW program makes a whistling sound after you've pressed ● in step 3, press PLAY MODE• MONO/ST ISS (Interference Suppress switch) repeatedly until the noise is at a minimum.
- To erase a recording, proceed as follows:
  1 Insert the tape whose recording you want to erase.
  2 Turn on the power.
  3 Press FUNCTION on the remote repeatedly until "TAPE" appears in the display.
  4 Press ●.

Use these buttons for additional operations



To	Press
stop recording	■⏏
pause recording	II Press the button again to resume recording.
turn on/off the player	OPERATE

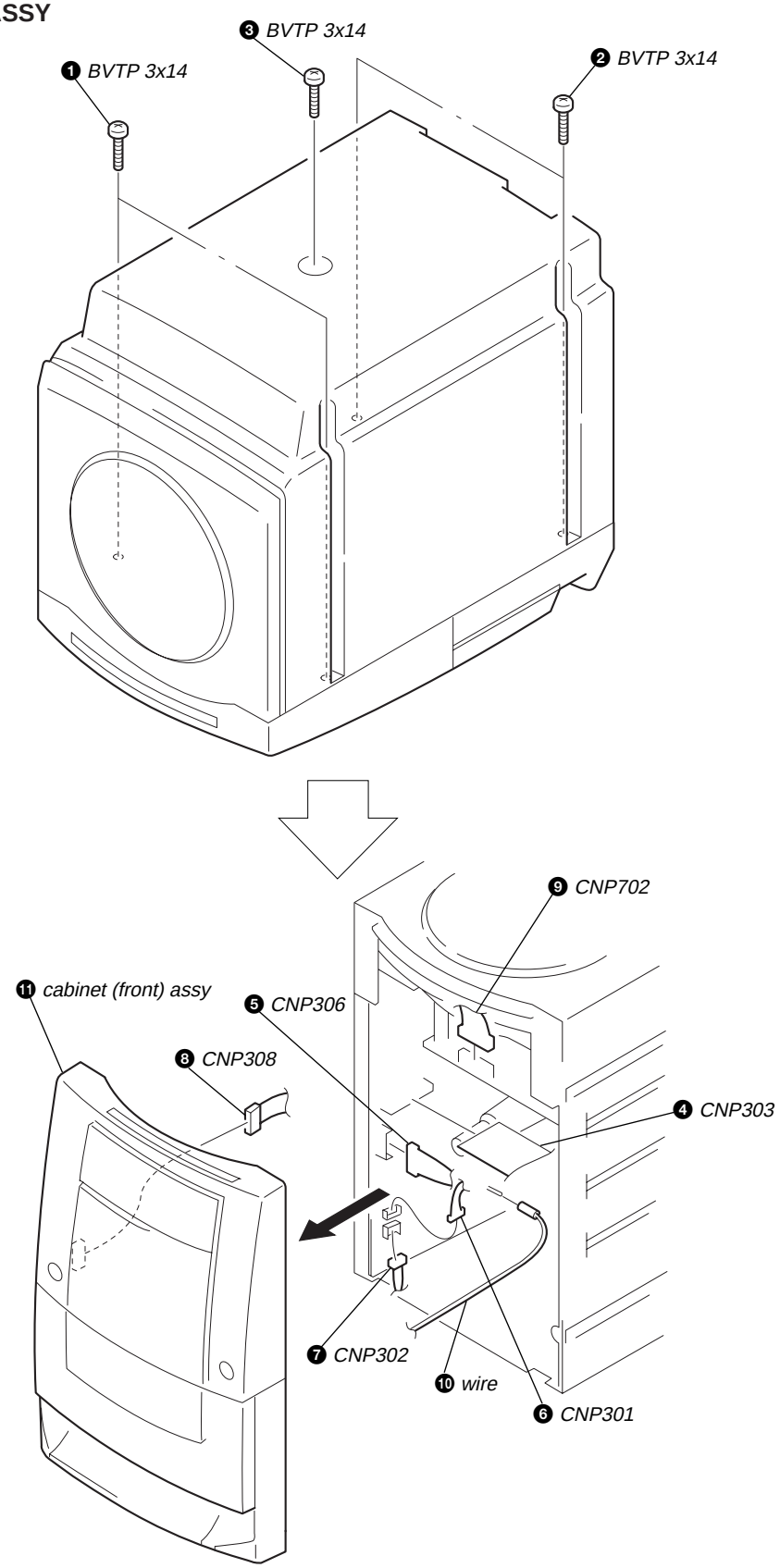
SECTION 3
DISASSEMBLY

• The equipment can be removed using the following procedure.

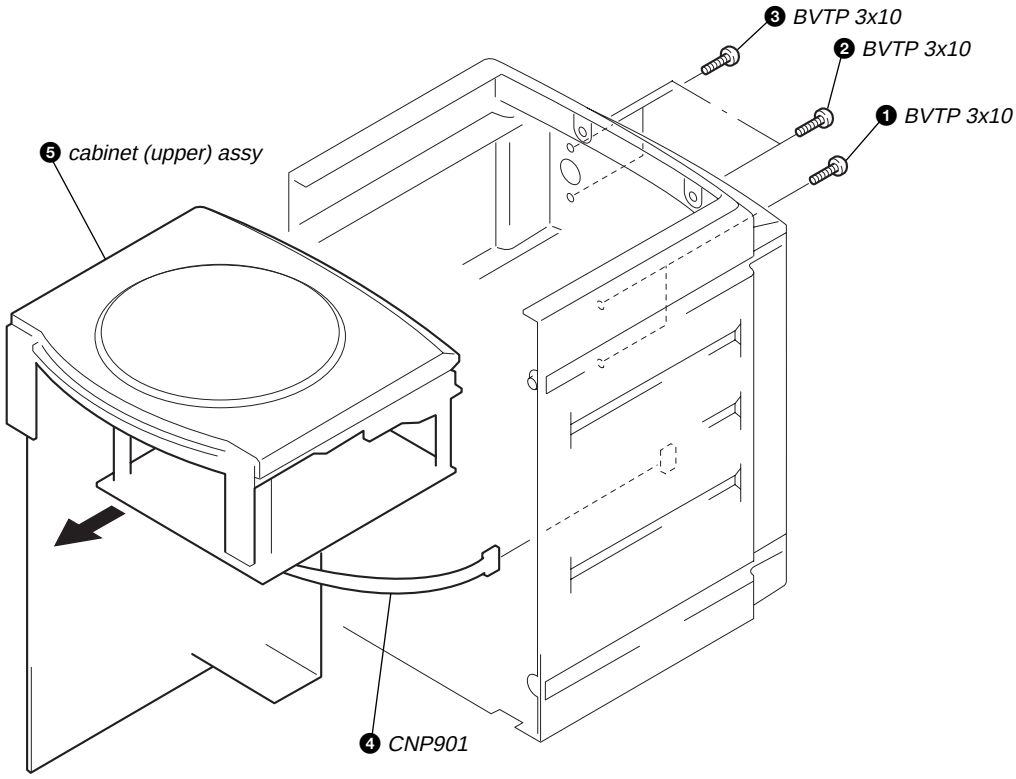
Set ➡ Cabinet (Front) assy ➡ Cabinet (Upper) assy ➡ Main board
Power board ➡ CD board ➡ Optical pick-up
Tape mechanism block ➡ How to apply the belts ➡ Motor assy (M301)
Head, magnetic (HRP301)
Control board and Back Light board

Note : Follow the disassembly procedure in the numerical order given.

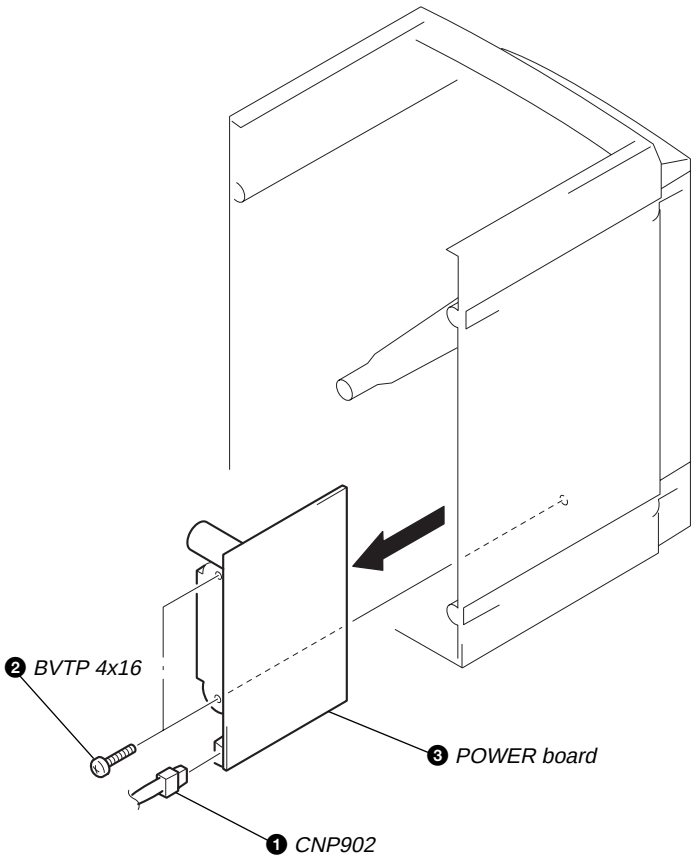
3-1. CABINET (FRONT) ASSY



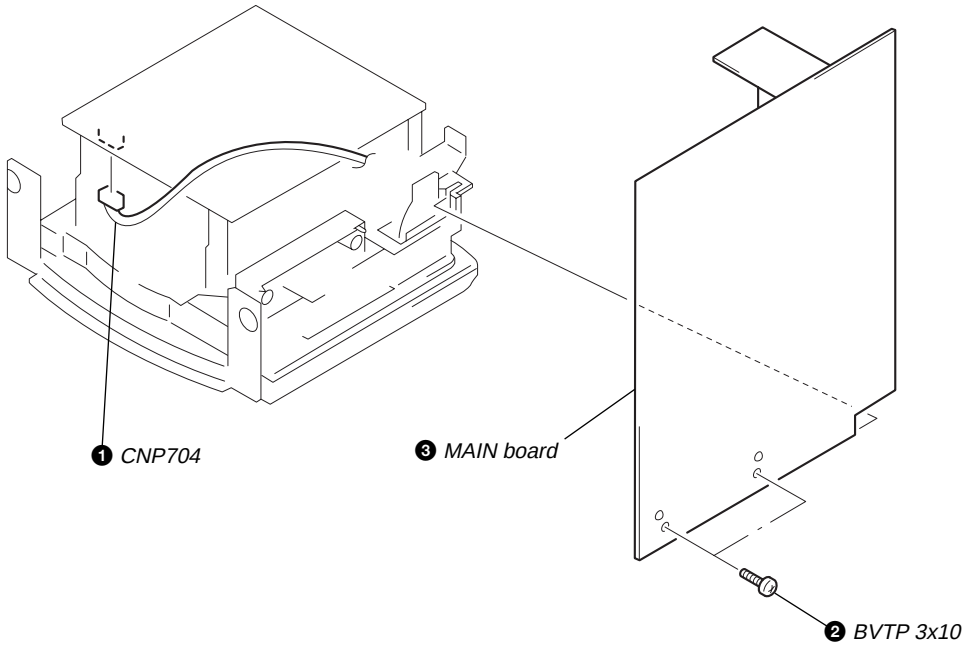
3-2. CABINET (UPPER) ASSY



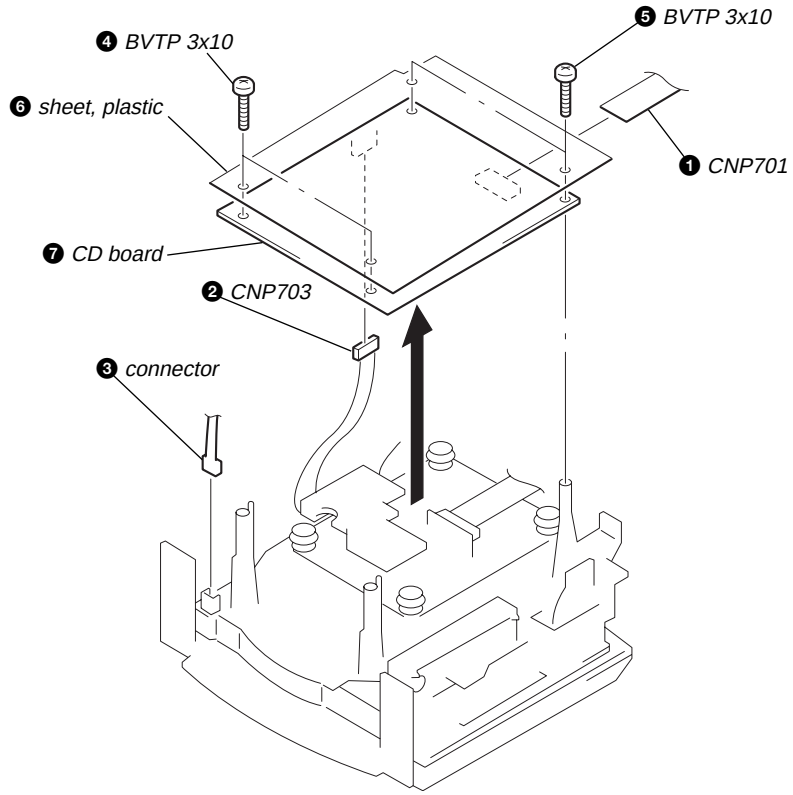
3-3. POWER BOARD



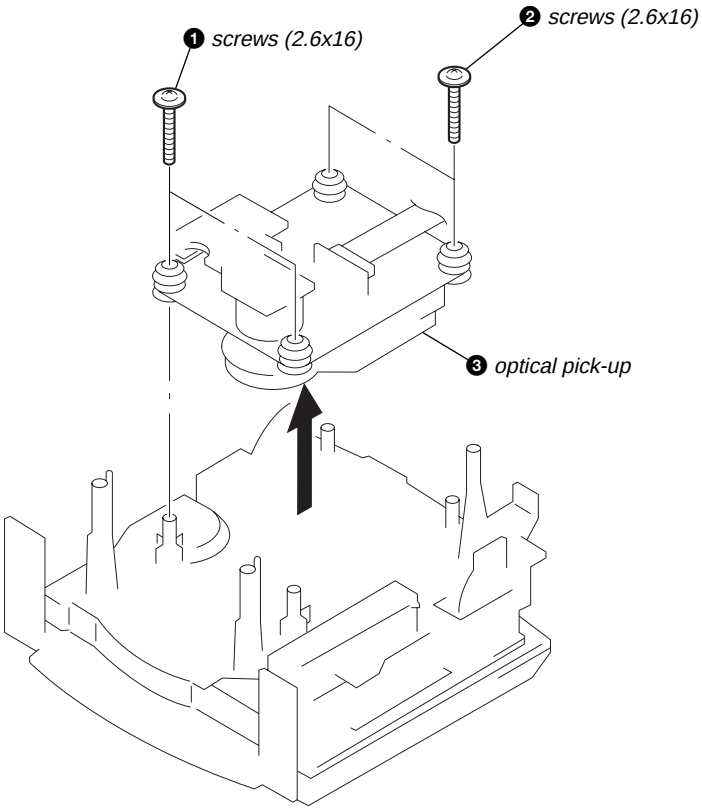
3-4. MAIN BOARD



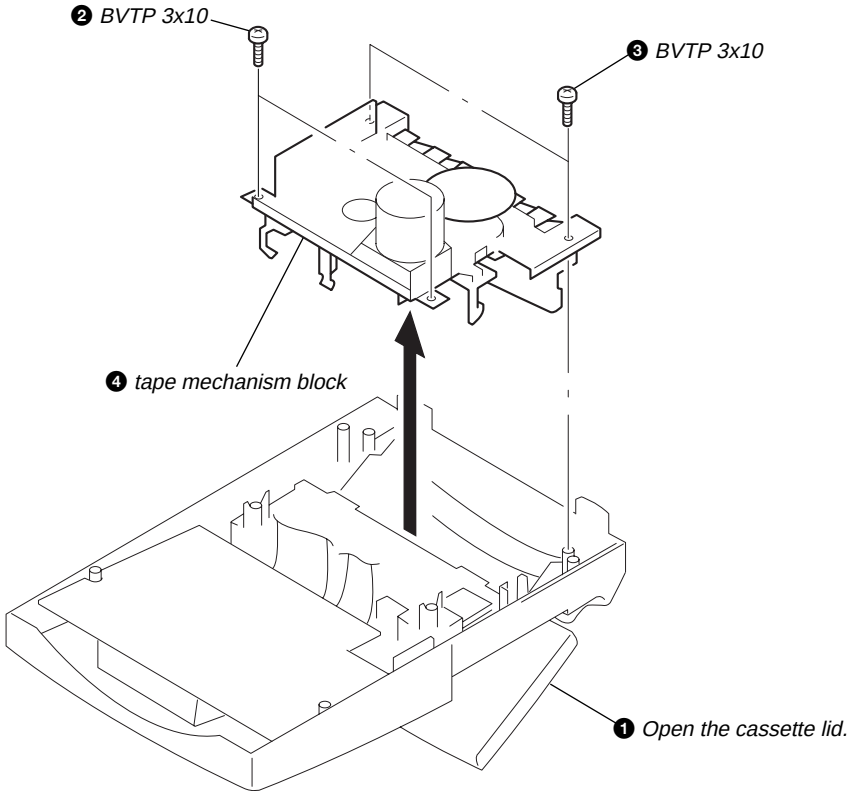
3-5. CD BOARD



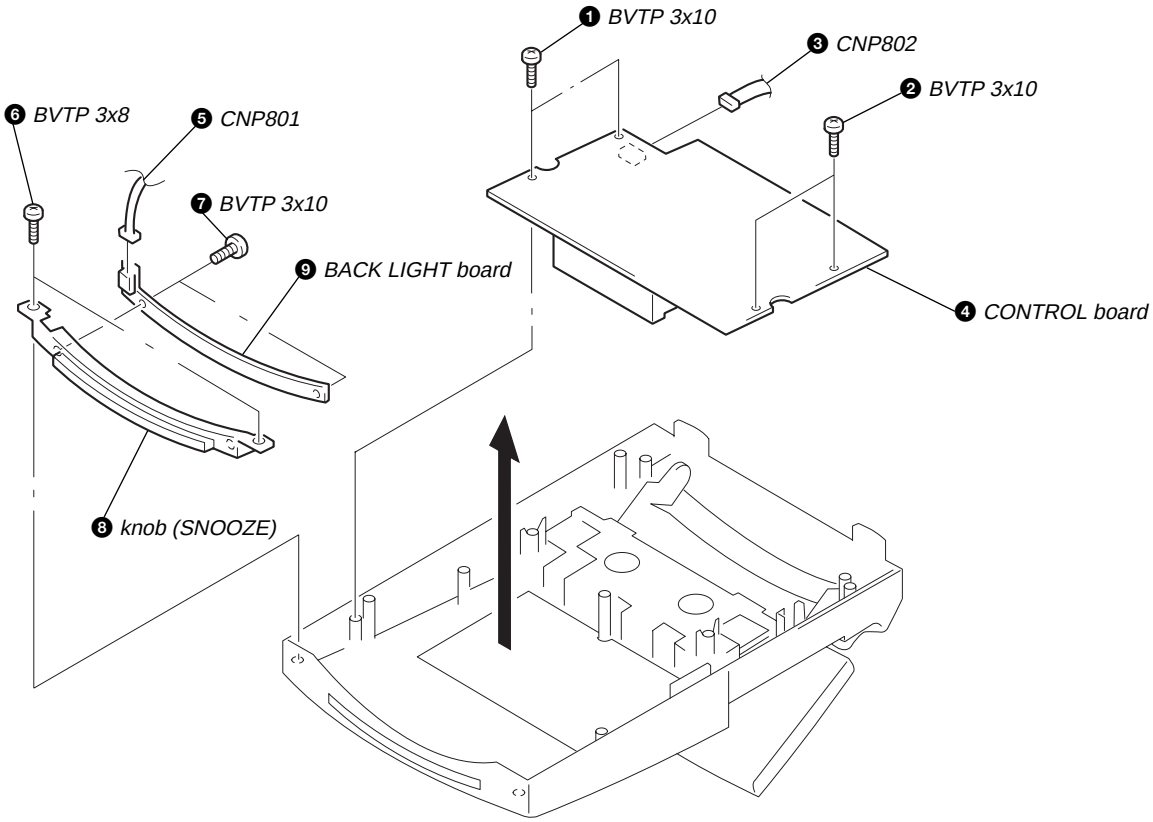
3-6. OPTICAL PICK-UP



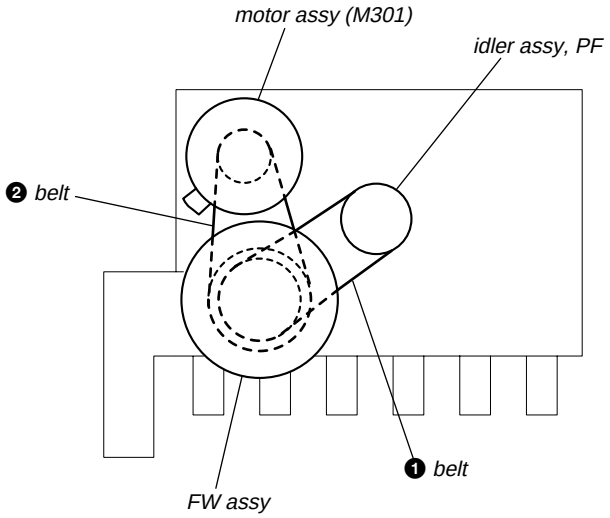
3-7. TAPE MECHANISM BLOCK



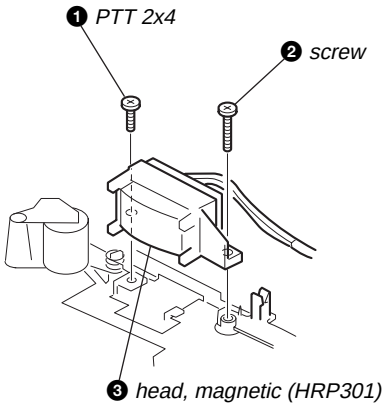
3-8. CONTROL BOARD AND BACK LIGHT BOARD



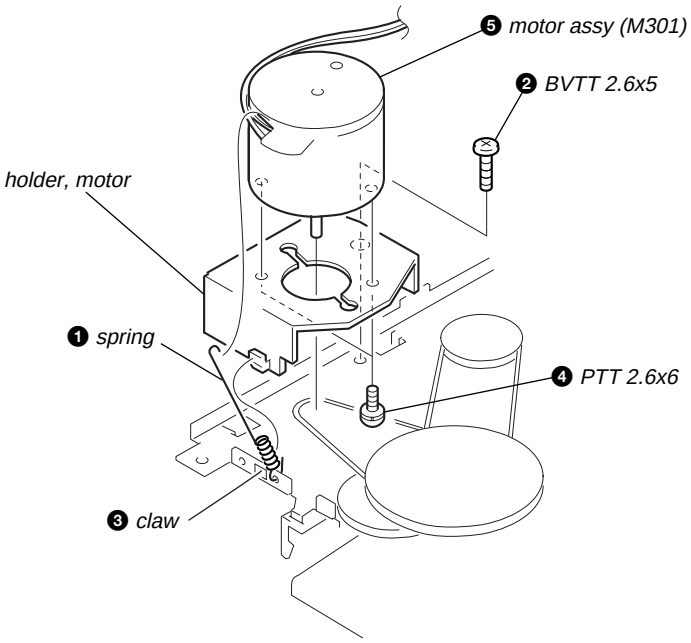
3-9. HOW TO APPLY THE BELTS



3-10. HEAD, MAGNETIC (HRP301)



3-11. MOTOR ASSY (M301)



SECTION 4
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :
   record/playback head — pinch roller
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head magnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	30 – 70 g • cm (0.42 – 0.97 oz • inch)
FWD Back Tension	CQ-102C	1.5 – 5.5 g • cm (0.021 – 0.076 oz • inch)
FF	CQ-201B	more than 60 g • cm (more than 0.83 oz • inch)
REW	CQ-201B	more than 60 g • cm (more than 0.83 oz • inch)

Tape Tension Measurement

Mode	Tension meter	Meter Reading
FWD	CQ-403A	more than 100 g (more than 3.53 oz)

SECTION 5
ELECTRICAL ADJUSTMENTS

TAPE SECTION **0 dB = 0.775 V**

• Standard Output Level

Output terminal	HP OUT
load impedance	32 Ω
output signal level	0.25 V (–10 dB)

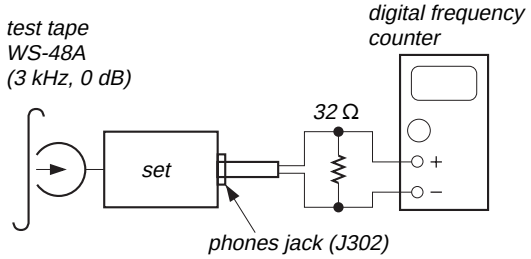
• Test Tape

Type	Signal	Used for
WS-48A	3 kHz, 0 dB	tape speed adjustment

Tape Speed Adjustment

Procedure:

Mode: playback



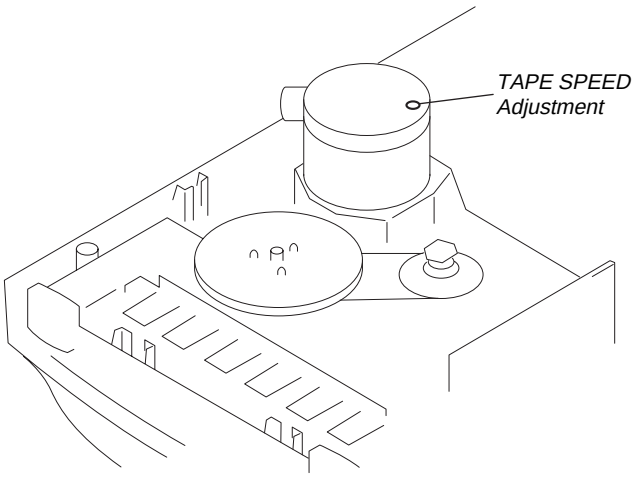
Adjust so that the value on the digital frequency counter is 3,000 Hz.

Specification Value:

Digital frequency counter
2,985 to 3,015 Hz

Adjust so that the frequency at the beginning and that at the end of tape winding are between 2,955 to 3,045 Hz.

Adjustment Location:



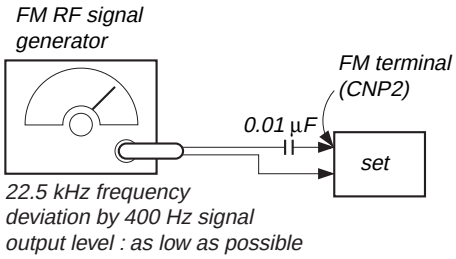
TUNER SECTION | 0 dB = 1 µV

Precautions in Repairing

Note : As a tuner unit (TU1) is difficult to repair if faulty, replace it with new one.

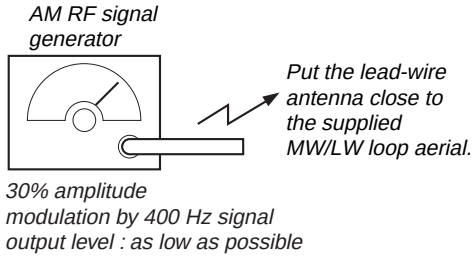
- **FM Section**

Setting:
BAND button: FM

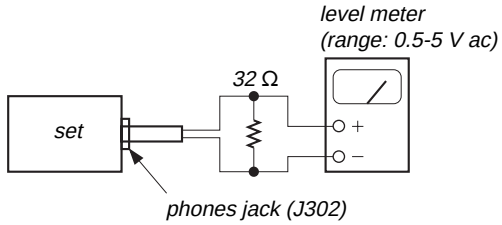

FM RF signal generator
FM terminal (CNP2)
0.01 µF
set
22.5 kHz frequency deviation by 400 Hz signal output level : as low as possible

- **MW/LW Section**

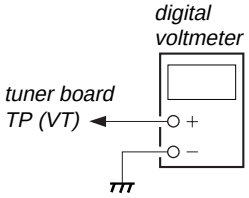
Setting:
BAND button: MW or LW


AM RF signal generator
Put the lead-wire antenna close to the supplied MW/LW loop aerial.
30% amplitude modulation by 400 Hz signal output level : as low as possible

- **Connecting Level Meter (FM, MW and LW)**



- **Connecting Digital Voltmeter (FM, MW and LW)**



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

FM FREQUENCY COVERAGE CHECK		
Frequency Display	87.5 MHz	108 MHz
Reading on Digital voltmeter	1.8 ± 0.2 V	5.6 ± 0.2 V
Adjustment Part	<confirmation>	<confirmation>

FM TRACKING CHECK	
Adjust for a maximum reading on level meter.	
<confirmation>	<confirmation>
87.5 MHz	108 MHz

MW FREQUENCY COVERAGE ADJUSTMENT		
Frequency Display	531 kHz	1,611 kHz
Reading on Digital voltmeter	0.9 ± 0.1 V	5.6 ± 0.2 V
Adjustment Part	L5	CT4

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L3	CT2
621 kHz	1,404 kHz

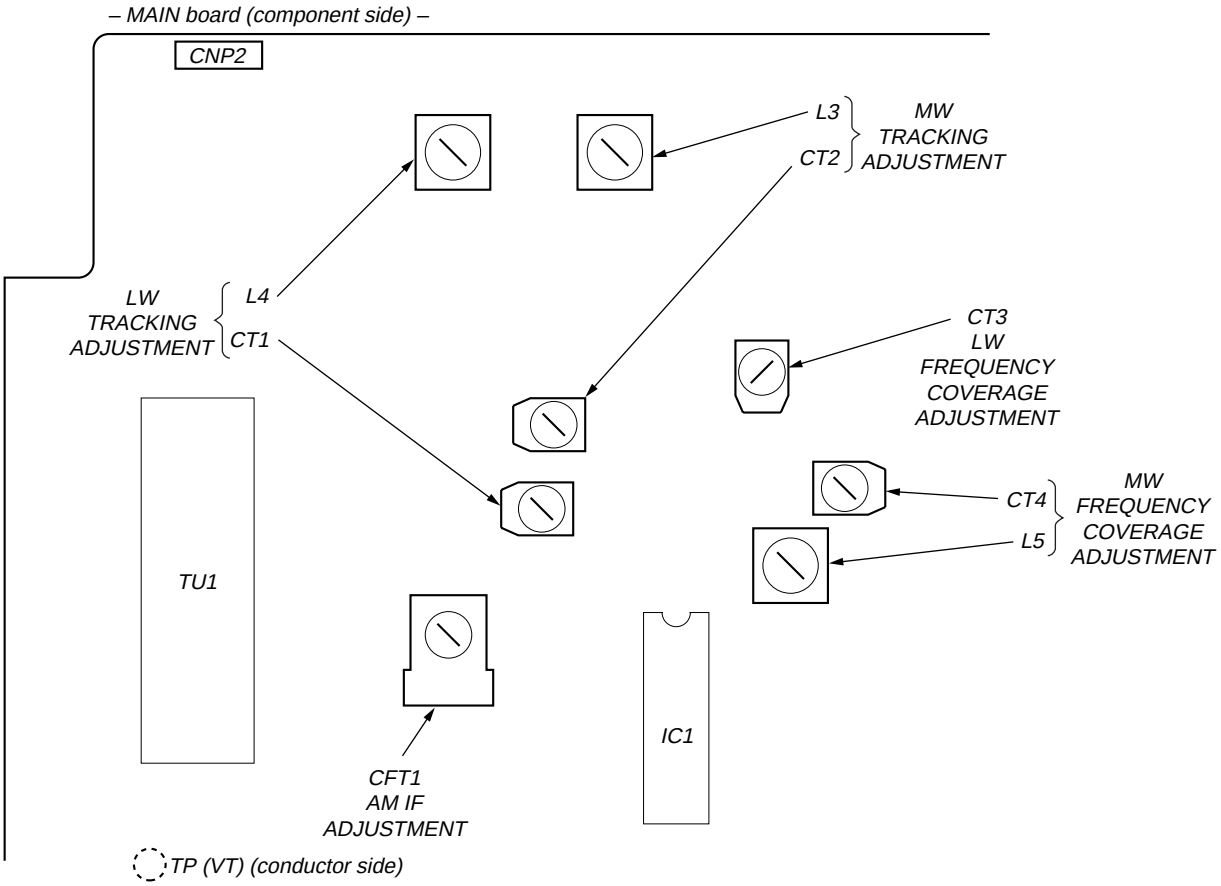
AM IF ADJUSTMENT
Adjust for a maximum reading on level meter.
CFT1
450 kHz

LW FREQUENCY COVERAGE ADJUSTMENT		
Frequency Display	153 kHz	279 kHz
Reading on Digital voltmeter	0.6 ± 0.1 V	5.3 ± 0.2 V
Adjustment Part	CT3	<confirmation>

LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L4	CT1
162 kHz	261 kHz

Adjustment Location: MAIN board (See page 14.)

Adjustment Location:



CD SECTION

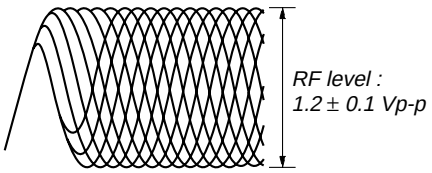
CD section adjustments are done automatically in this set.
In case of operation check, confirm that focus bias.

FOCUS BIAS CHECK

1. Connect the oscilloscope between IC701 pin ㉝ (TP RF) and GND on CD board.
2. Set the Test Disc YEDS-18 (CD). (Part No. : 3-702-101-01)
3. Press the ▶II (CD) button.
4. Confirm that the oscilloscope waveform is as shown in the figure below. (eye pattern)
   A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.

• RF signal reference waveform (eye pattern)

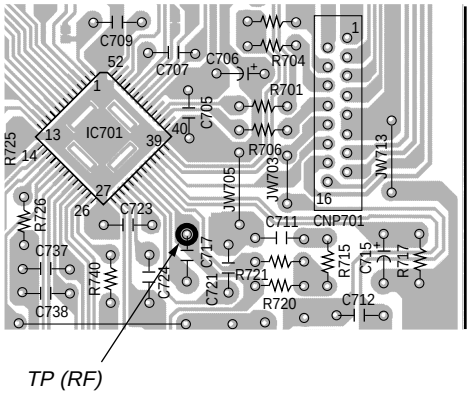
VOLT/DIV : 200 mV (10 : 1 probe in use)
TIME/DIV : 500 nS



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

Test Point:

– CD board (conduction side) –



SECTION 6
DIAGRAMS

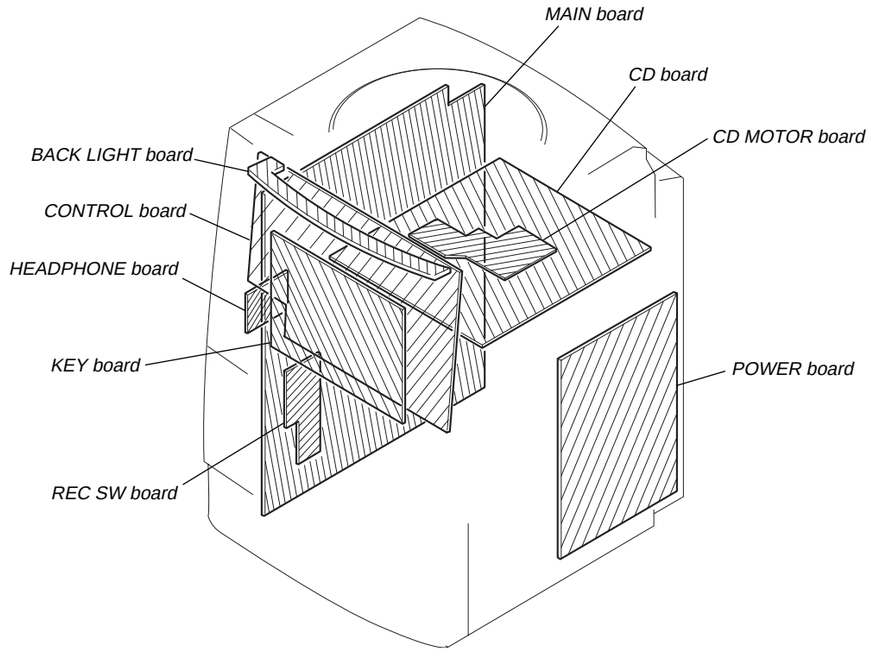
6-1. IC PIN DESCRIPTION

• IC801 CXP83232A-015Q (SYSTEM CONTROL)

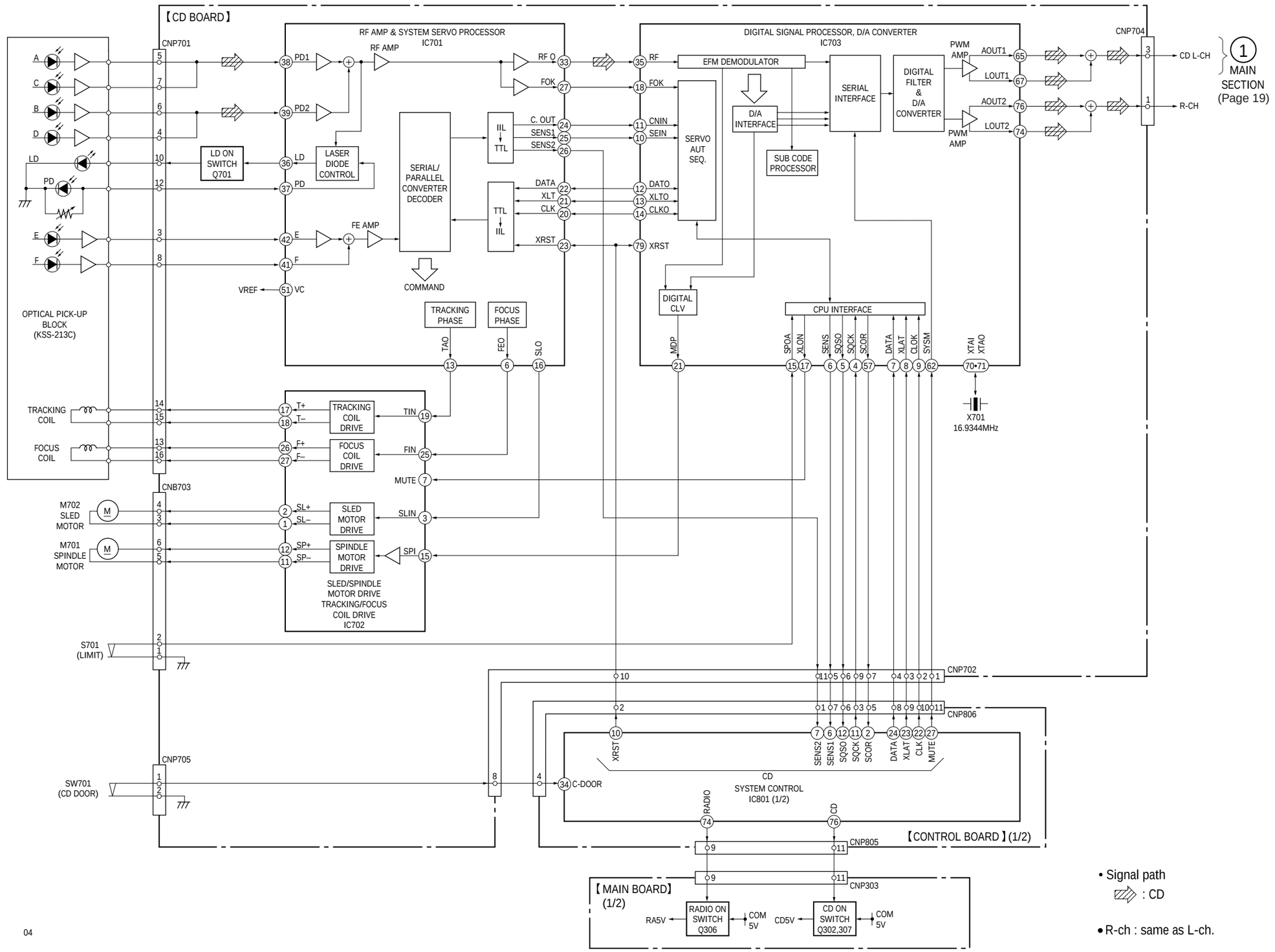
Pin No.	Pin Name	I/O	Pin Description
1	REG	I	AC check input
2	C-SCOR	I	CD-SCOR input
3	RMC	I	SIRCS receiver input
4, 5	NC	—	Not used.
6	C-SENS	I	CD SENS-1 input
7	C-SENS2	I	CD SENS-2 input
8	RDS-CLK	O	Tuner demodulator clock output
9	RDS-DATA	O	Tuner demodulator data output
10	C-XRST	O	CD system reset output
11	C-SQCK	O	Clock output for CD SUB-Q.
12	C-SQSO	I	CD SUB-Q input
13	A-MUTE	O	Mute signal output for audio.
14	R-ST	I	Stereo detection input
15	R-COUNT	I	Tuner PLL IC count input
16	R-DATA	O	Tuner PLL IC data output
17	R-CLK	O	Tuner PLL IC clock output
18	R-CE	O	Tuner PLL IC chip enable output
19	V-CE	O	Electrical volume chip enable output
20	V-DAT	O	Volume data output
21	V-CLK	O	Volume clock output
22	C-CLK	O	Clock output for CD-DSP command.
23	C-XLAT	O	CD-DSP command latch output
24	C-DATA	O	CD-DSP command data output
25	PA-CON	O	Power on/off control output
26	REG-CON	O	Regulator on/off control output. LED (STANDBY) control signal output.
27	C-MUTE	O	Mute signal output for CD.
28	BACKLIGHT-ON	O	Not used.
29	RDS-IND	O	Not used.
30 – 32	KEY1 – 3	I	Key return signal input
33	VER	I	Mode setting terminal
34	C-DOOR	I	CD lid open/close detection input
35	NC	—	Not used.
36	9/10K	I	Not used.
37	SHIFT-CLK	O	Shift clock on/off output
38	RST	I	Reset signal input
39	EXTAL	I	Clock oscillation input (8 MHz)
40	XTAL	O	Clock oscillation output (8 MHz)
41	VSS	—	Ground (for A/D converter)
42, 43	NC	—	Not used.
44	AVREF	I	Reference voltage input (for A/D convereter)
45	AVSS	—	Ground (for A/D converter)
46	VL	O	LCD bias resistor current control terminal (Cut off at standby)
47 – 49	VLC3 – 1	—	LCD bias power supply terminal
50 – 53	COM0 – 3	O	LCD common signal output terminal
54 – 73	SEG0 – 19	O	LCD segment signal output terminal
74	RADIO	O	Regulator on/off control output for radio block.
75	TAPE	O	Regulator on/off control output for tape block.
76	CD	O	Regulator on/off control output for CD block.

Pin No.	Pin Name	I/O	Pin Description
77 – 88	SEG20 – 31	O	LCD segment signal output terminal
89	VDD	—	Power supply (+ 5V)
90	NC	—	Connected to VDD.
91	VSS	—	Ground
92	TX	O	Crystal connection for clock oscillation. (32.768 kHz)
93	TEX	I	Crystal connection for clock oscillation. (32.768 kHz)
94 – 98	SEG32 – 36	O	LCD segment signal output terminal
99	REC	I	Tape REC detection signal input (from SW301)
100	PLAY	I	Tape PLAY detection signal input (from S302)

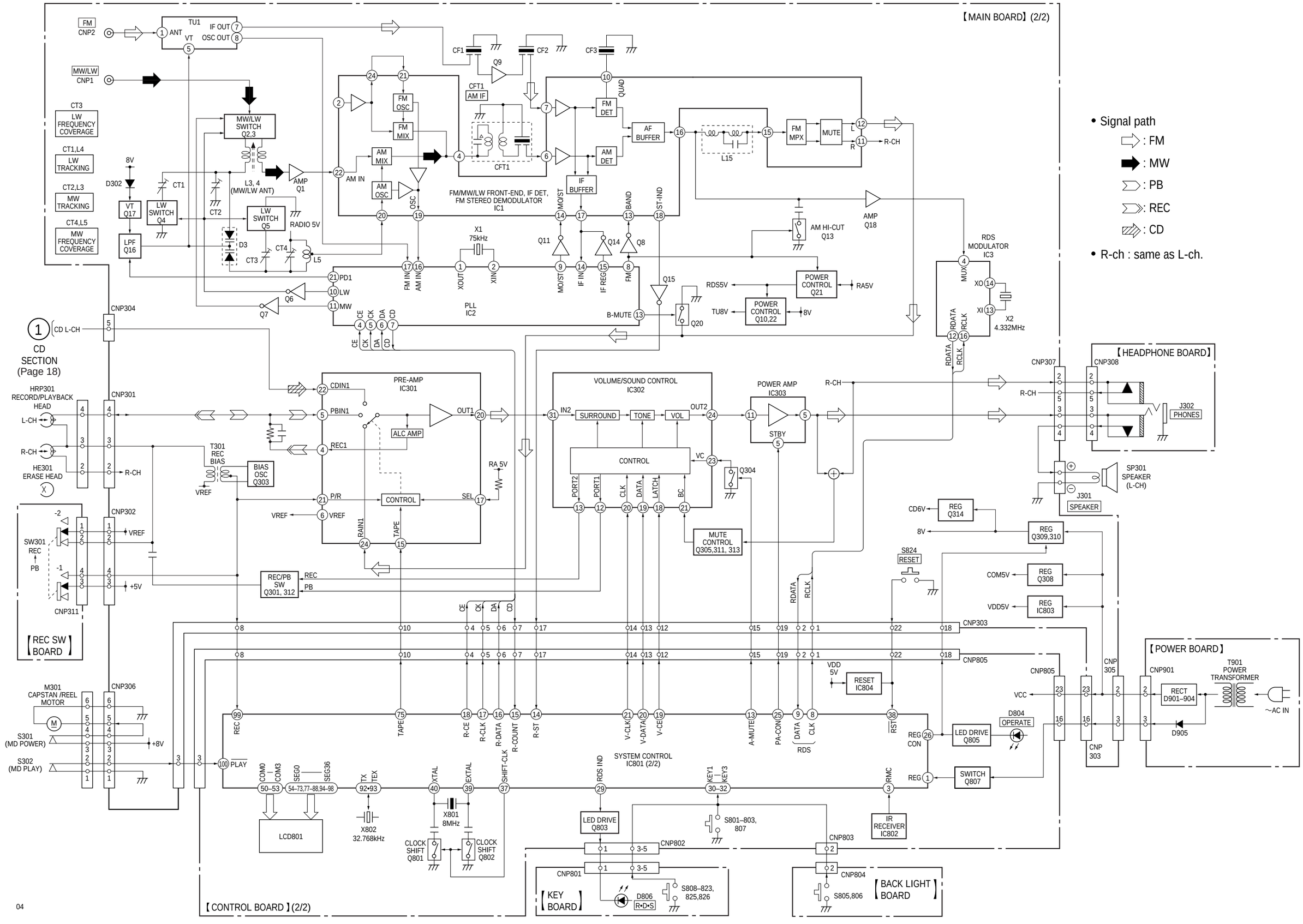
6-2. CIRCUIT BOARDS LOCATION



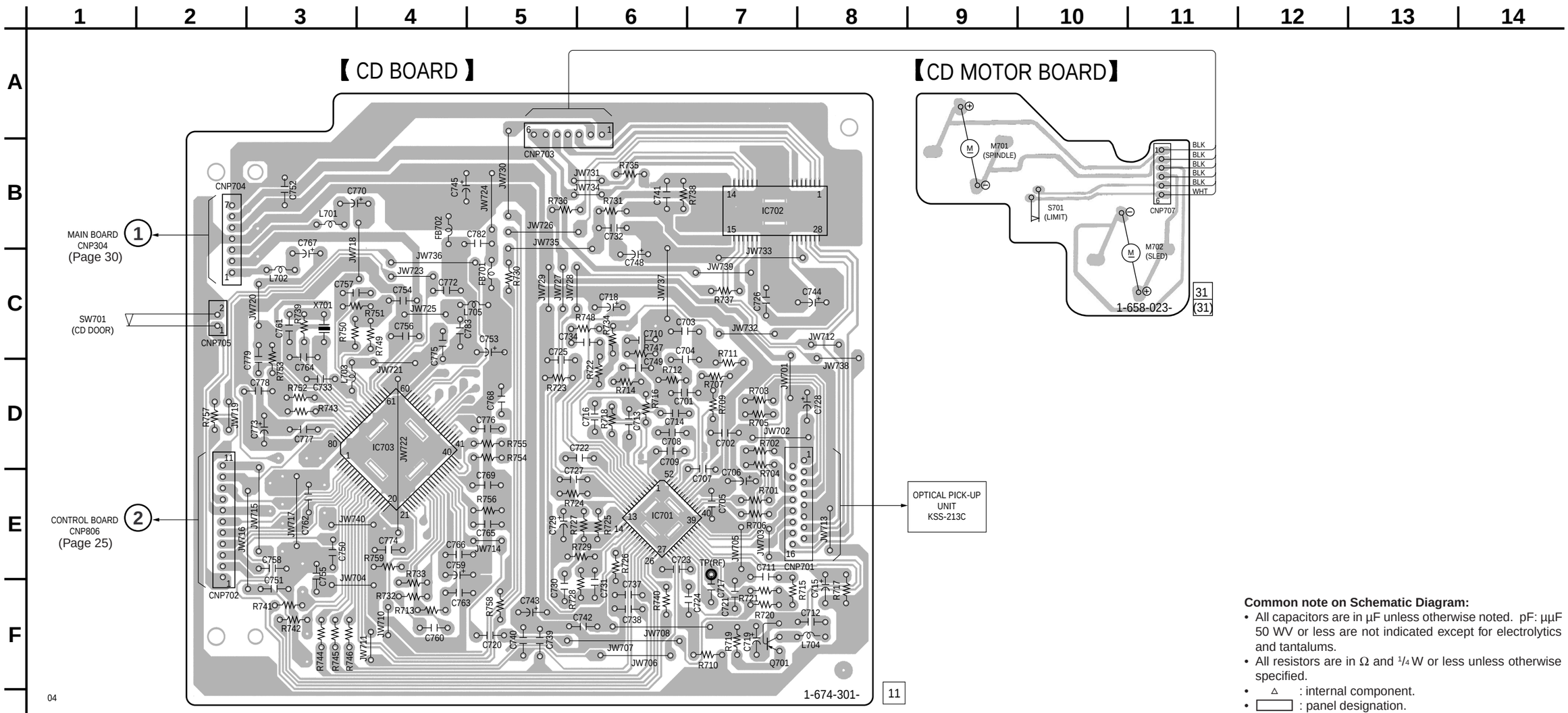
6-3. BLOCK DIAGRAM — CD SECTION —



6-4. BLOCK DIAGRAM — MAIN SECTION —



6-5. PRINTED WIRING BOARDS — CD SECTION — • Refer to page 16 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location
IC701	E-6
IC702	B-7
IC703	D-4
Q701	F-4

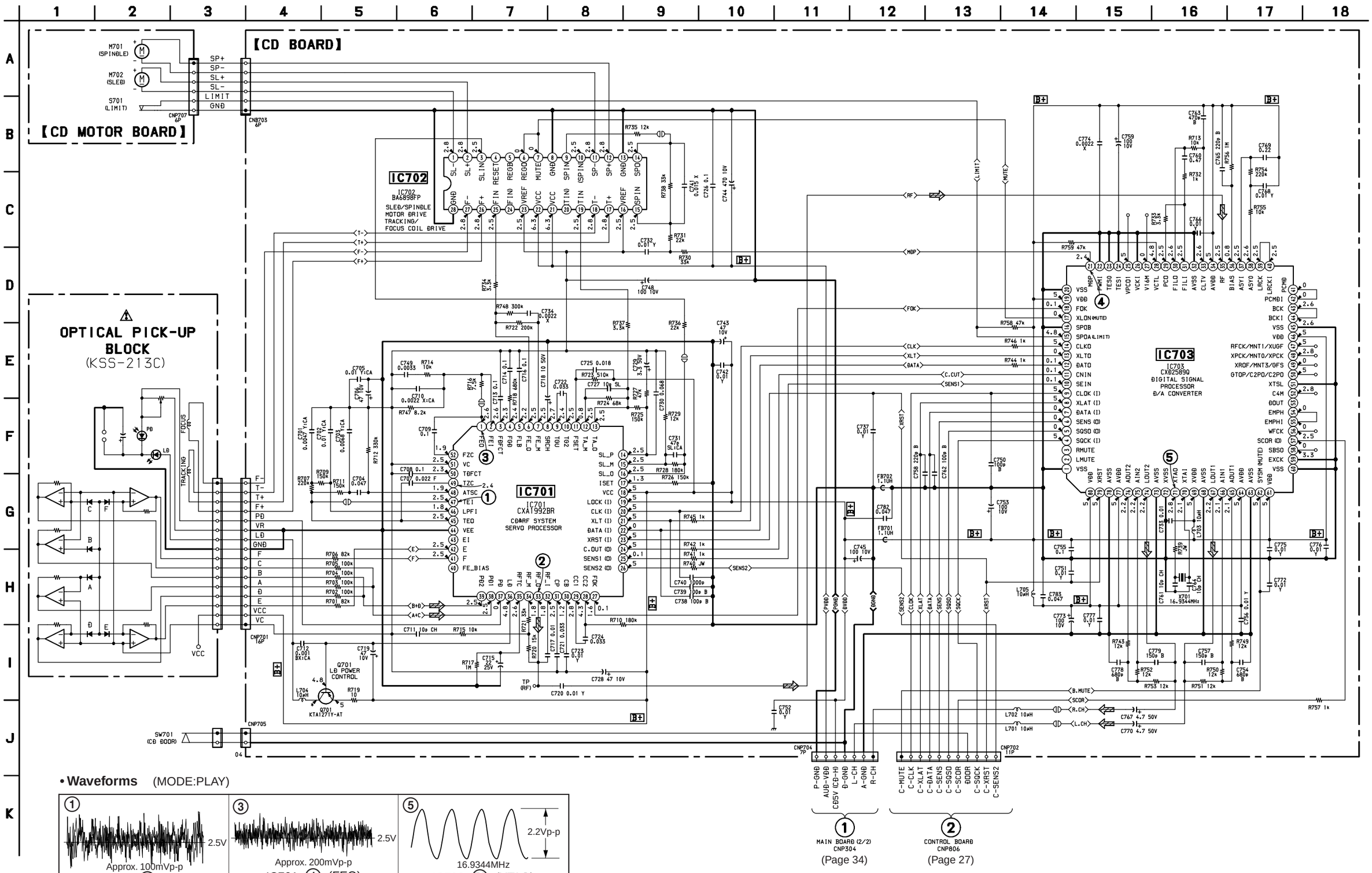
Common note on Printed Wiring Boards:
- ○——— : parts extracted from the component side.
- △ : internal component.
- ▒▒▒ : Pattern from the side which enables seeing.

Common note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

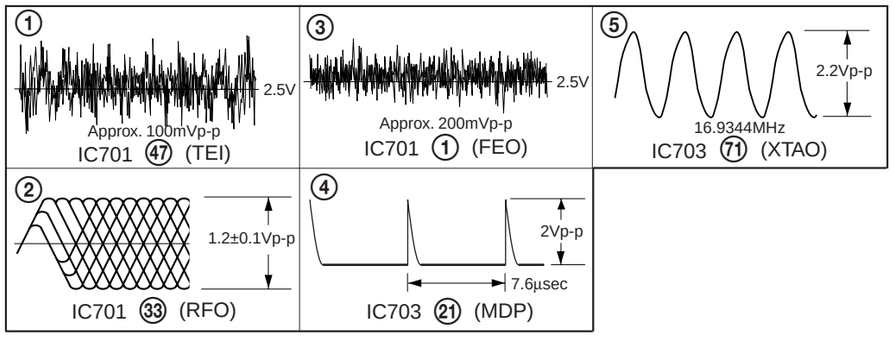
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- B + : B+ Line.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
- Waveforms are dc with respect to ground in playback mode.
  no mark : FM or CD
  ( ) : MW
  < > : LW
  ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : MW
  ⇨ : PB
  ⇨ : REC
  ⇨ : CD

6-6. SCHEMATIC DIAGRAMS — CD SECTION — • Refer to page 36 for IC Block Diagrams.

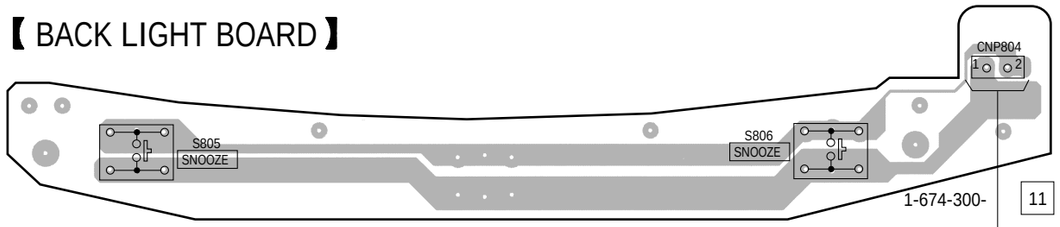


• **Waveforms** (MODE:PLAY)

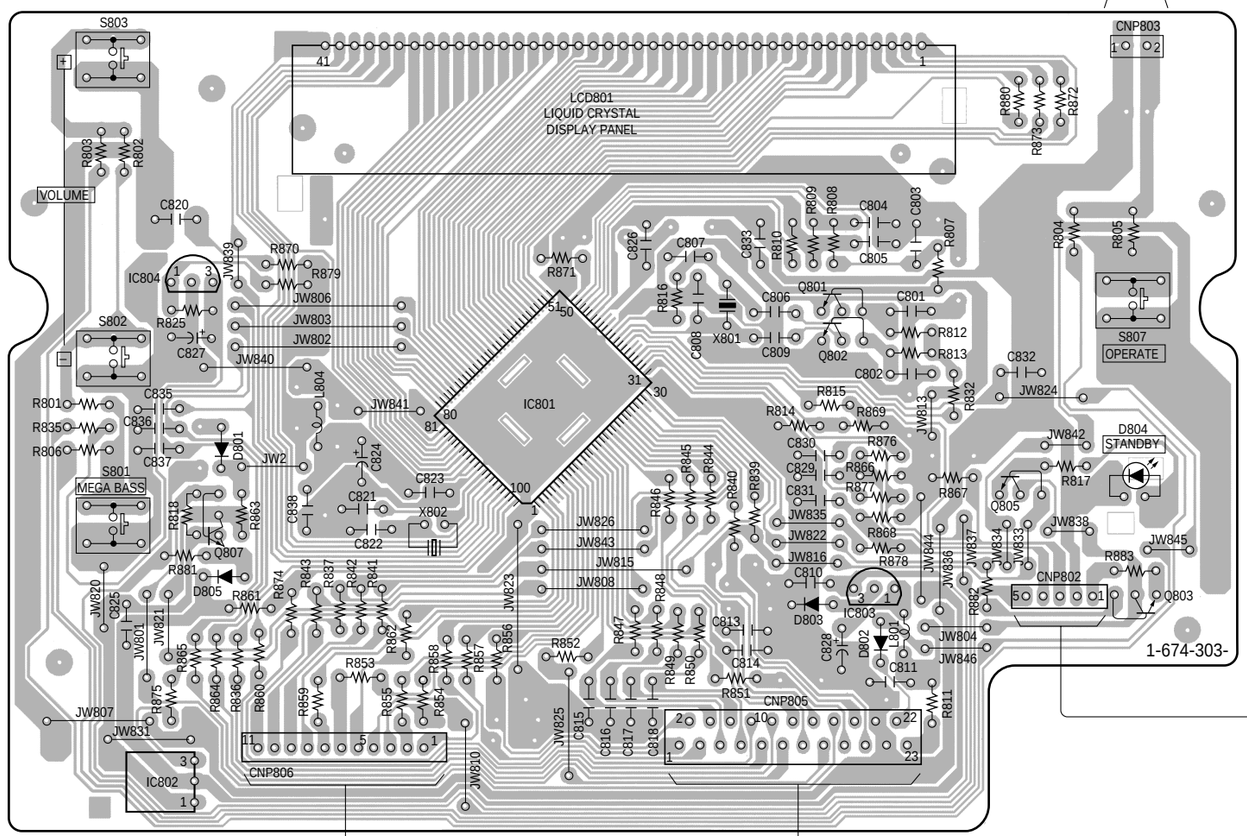


6-7. PRINTED WIRING BOARDS — CONTROL SECTION — • Refer to page 16 for Circuit Boards Location.

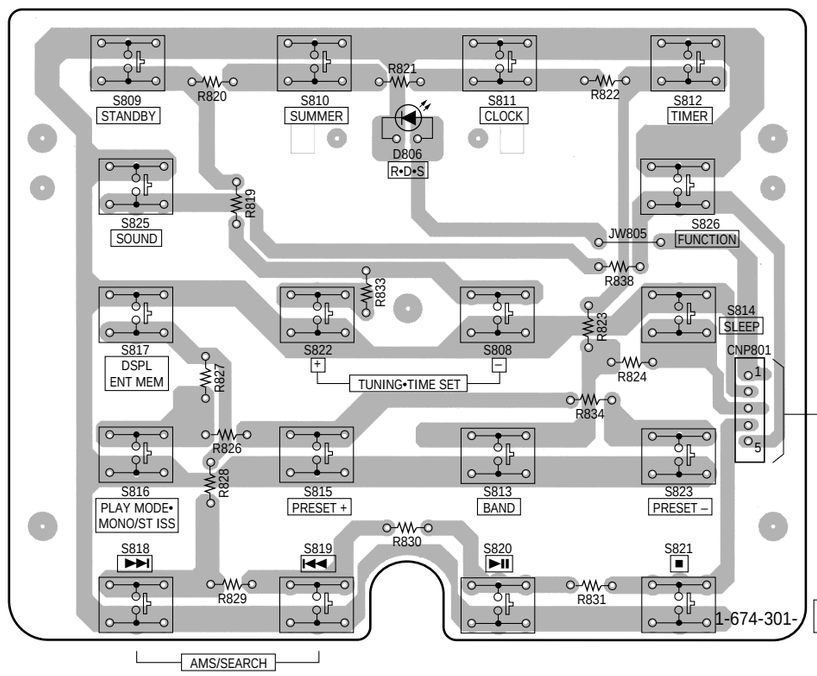
【 BACK LIGHT BOARD 】



【 CONTROL BOARD 】



【 KEY BOARD 】



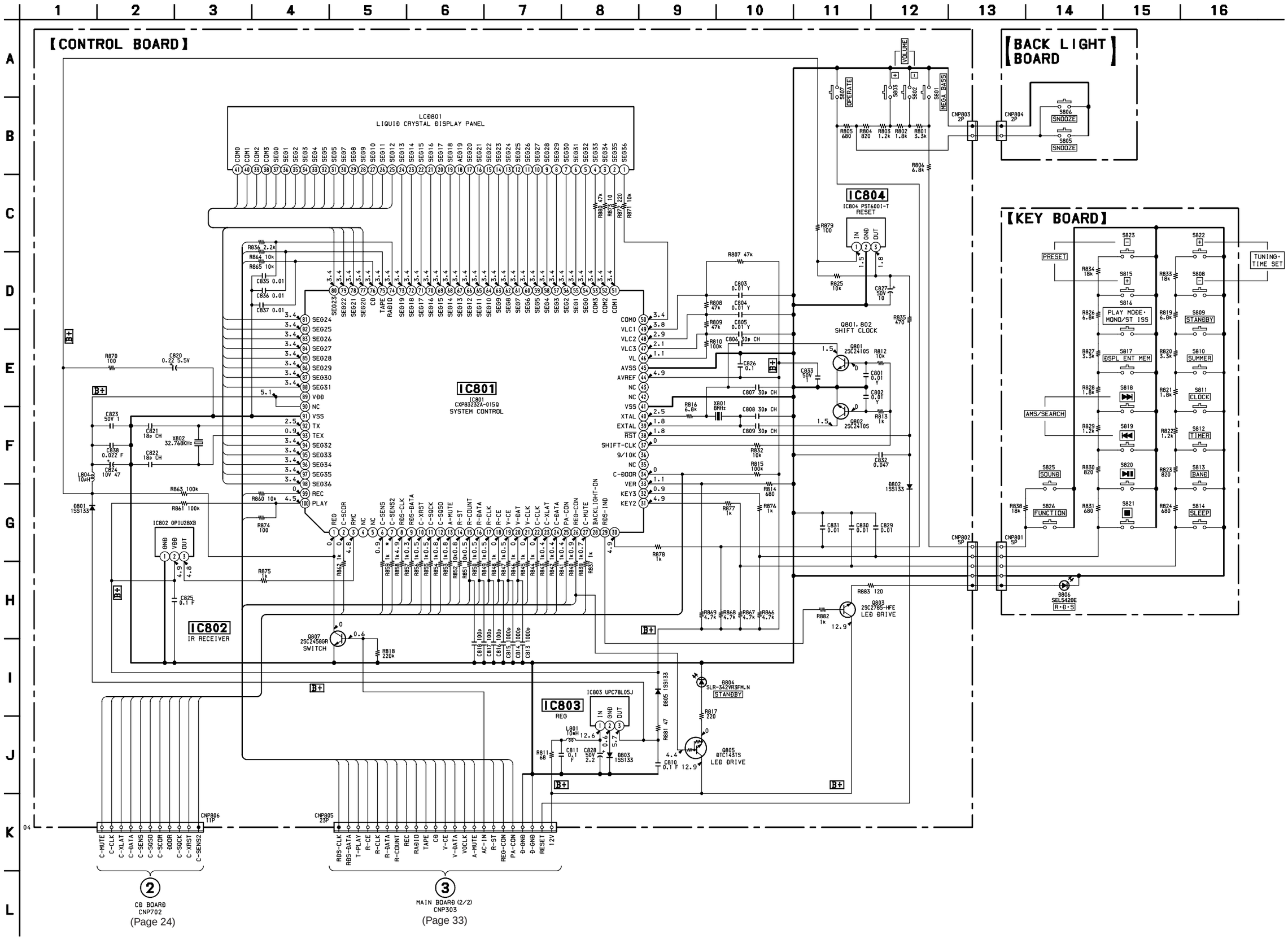
2
CD BOARD
CNP702
(Page 21)

3
MAIN BOARD
CNP303
(Page 30)

• **Semiconductor Location**

Ref. No.	Location
D801	F-2
D802	G-6
D803	G-6
D804	F-8
D805	F-2
D806	D-11
IC801	E-4
IC802	H-1
IC803	F-6
IC804	E-2
Q801	E-6
Q802	E-6
Q805	F-7
Q807	F-2

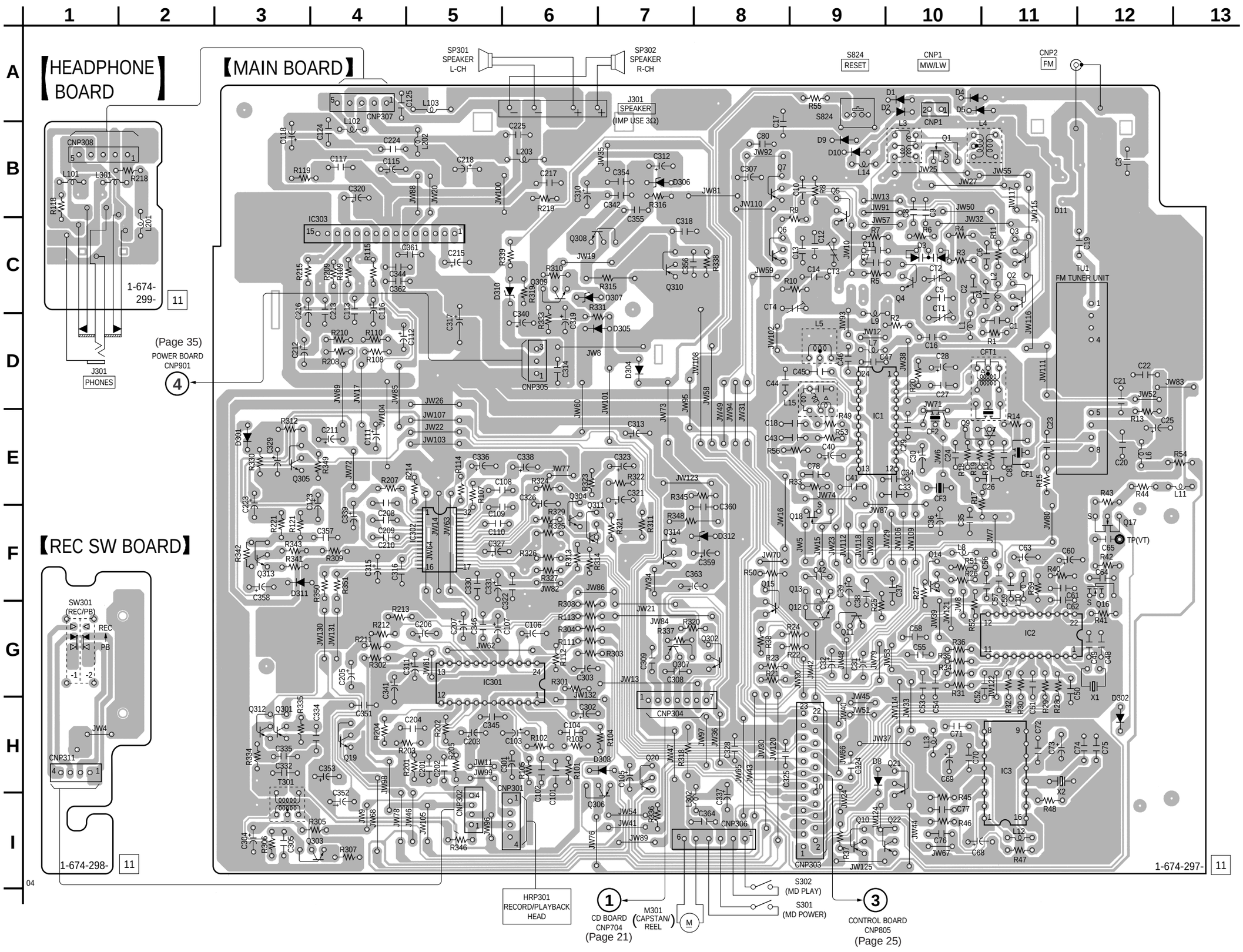
6-8. SCHEMATIC DIAGRAMS — CONTROL SECTION —



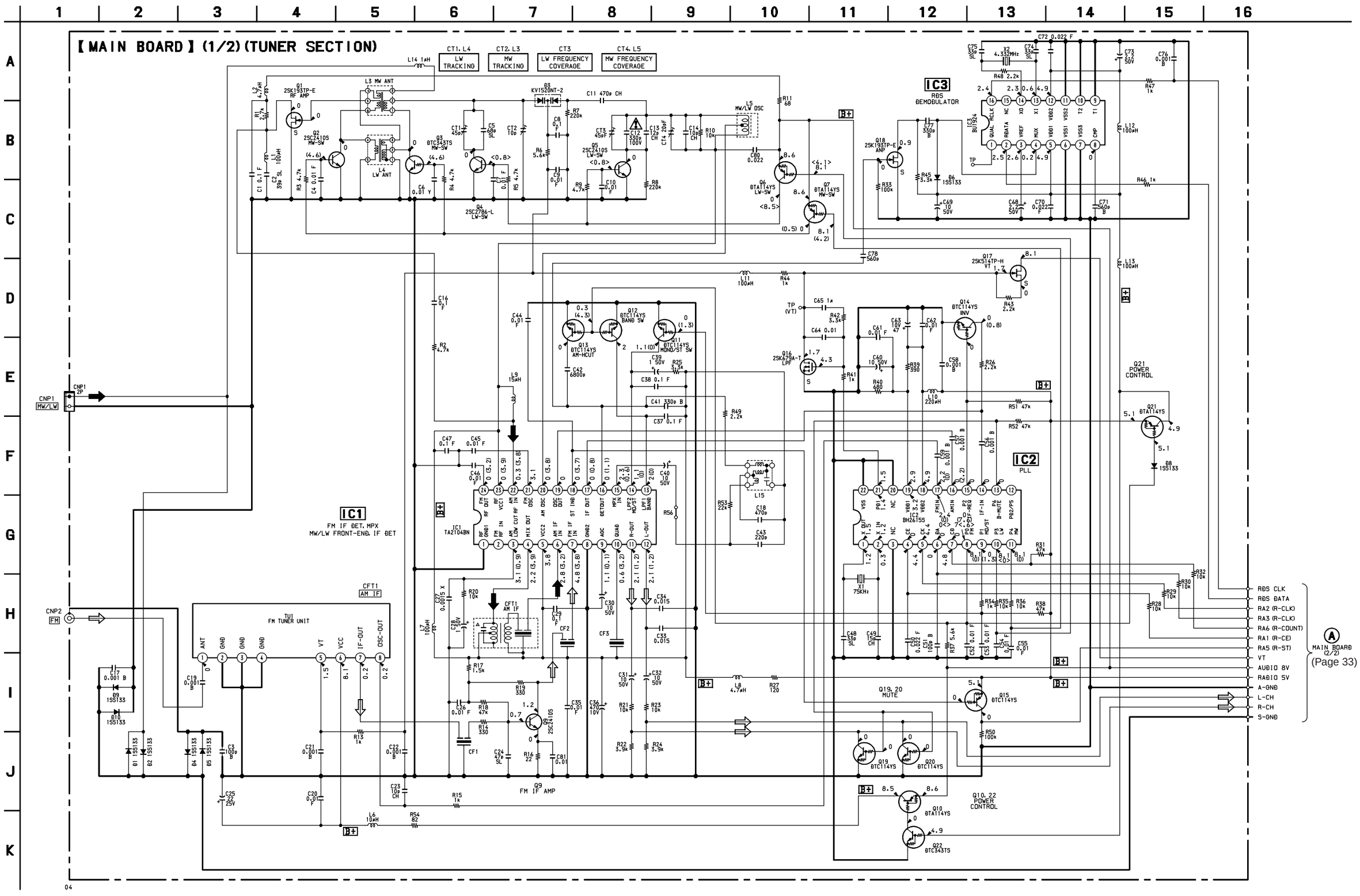
6-9. PRINTED WIRING BOARDS — MAIN SECTION — • Refer to page 16 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D1	A-10
D2	A-10
D3	C-10
D4	A-10
D5	A-10
D6	H-10
D8	H-9
D9	B-9
D10	B-9
D11	B-11
D12	B-11
D301	E-3
D302	H-12
D304	D-7
D305	D-7
D306	B-7
D307	C-7
D308	H-6
D310	C-6
D311	F-3
D312	F-8
IC1	D-10
IC2	G-11
IC3	H-11
IC301	G-5
IC302	F-5
IC303	C-4
Q1	B-10
Q2	C-11
Q3	C-11
Q4	C-10
Q5	B-9
Q6	C-8
Q7	B-8
Q9	E-10
Q10	I-9
Q12	G-9
Q13	F-9
Q14	F-10
Q15	F-8
Q16	F-12
Q17	F-12
Q18	E-9
Q19	H-4
Q20	H-7
Q21	H-10
Q22	I-9
Q301	H-3
Q302	G-8
Q303	I-4
Q304	E-6
Q305	E-4
Q306	H-6
Q307	G-7
Q308	C-6
Q309	C-6
Q310	C-7
Q312	H-3
Q313	F-3
Q314	F-7

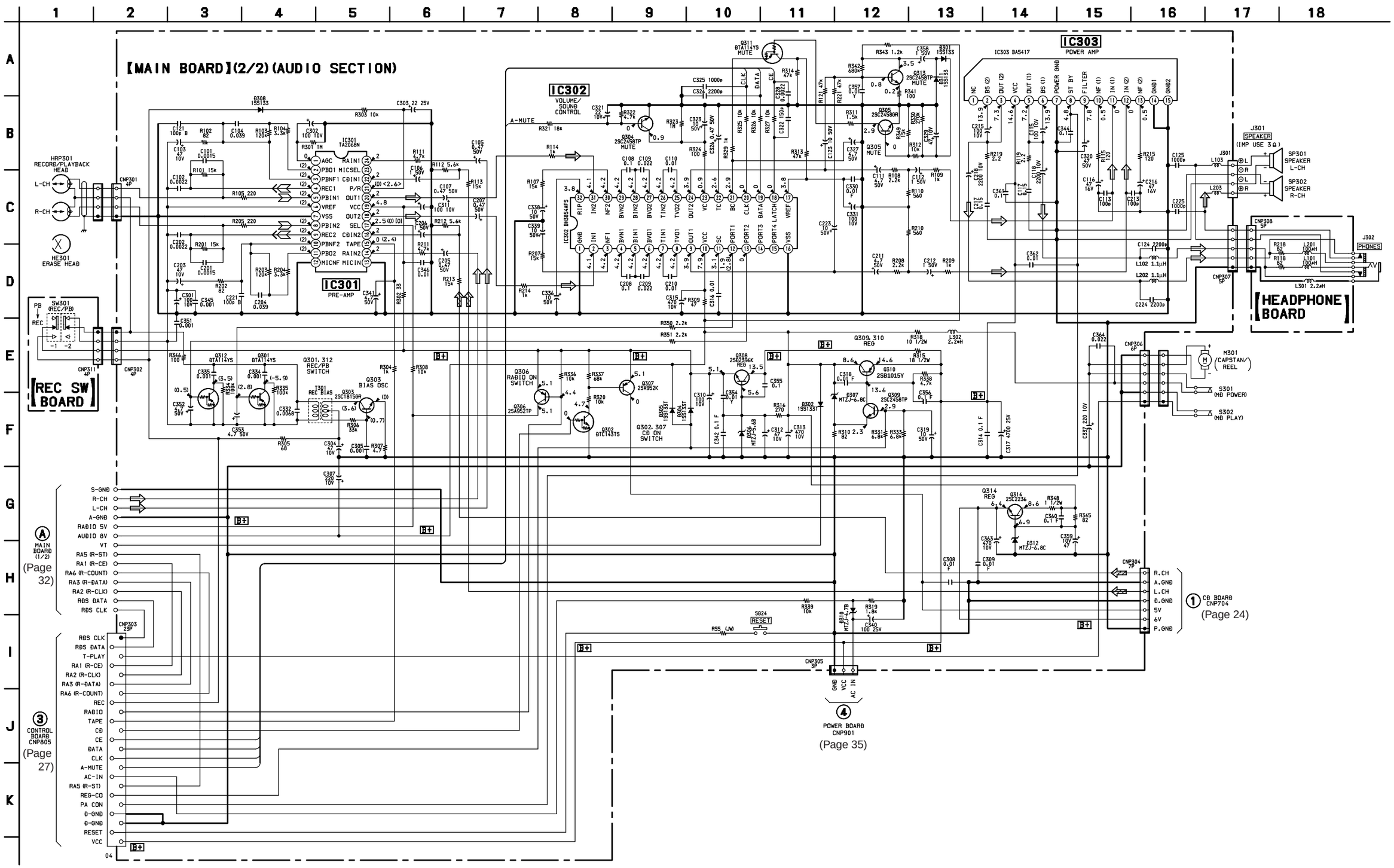


6-10. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • Refer to page 38 for IC Block Diagrams.



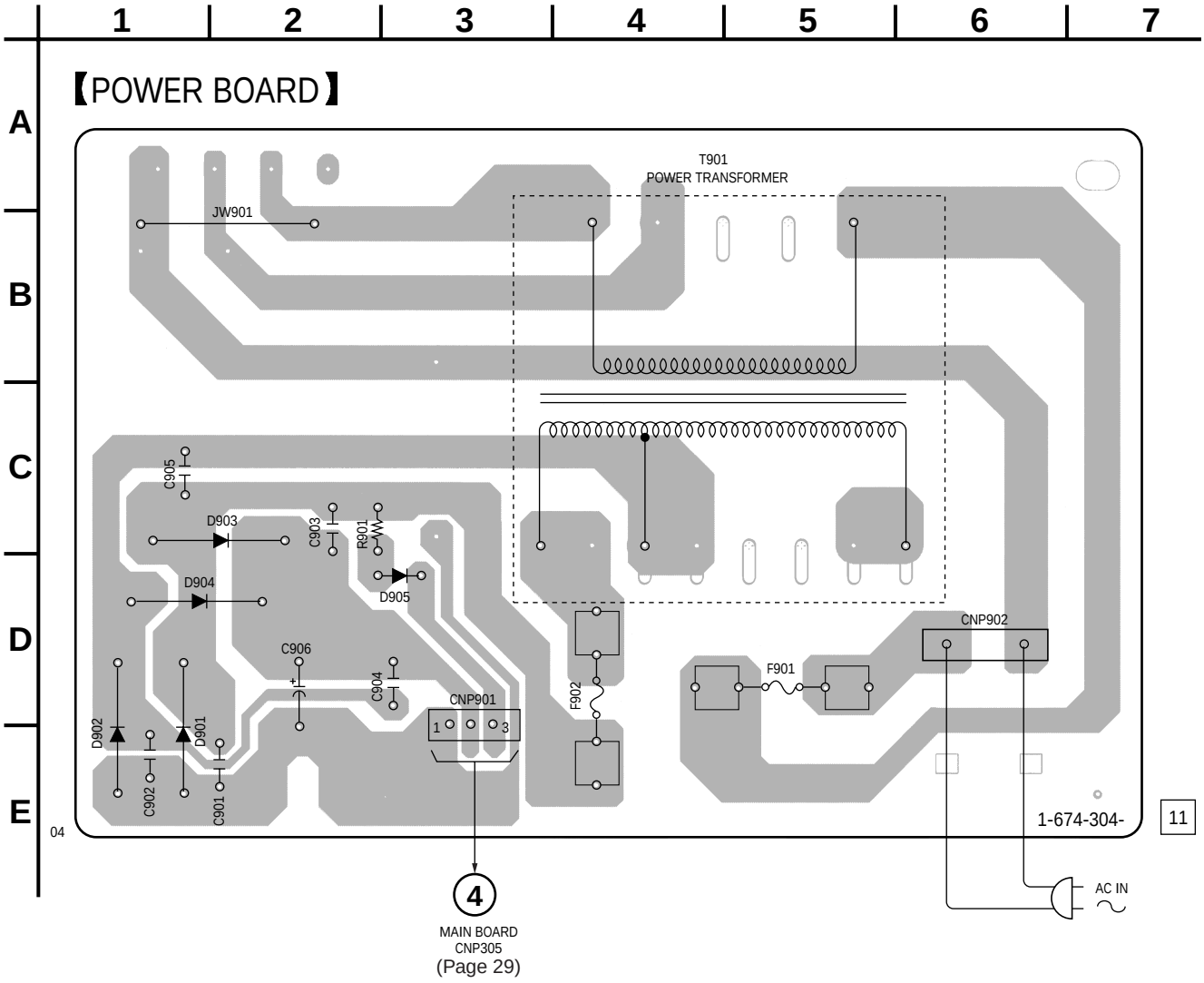
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

6-11. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) — • Refer to page 39 for IC Block Diagrams.

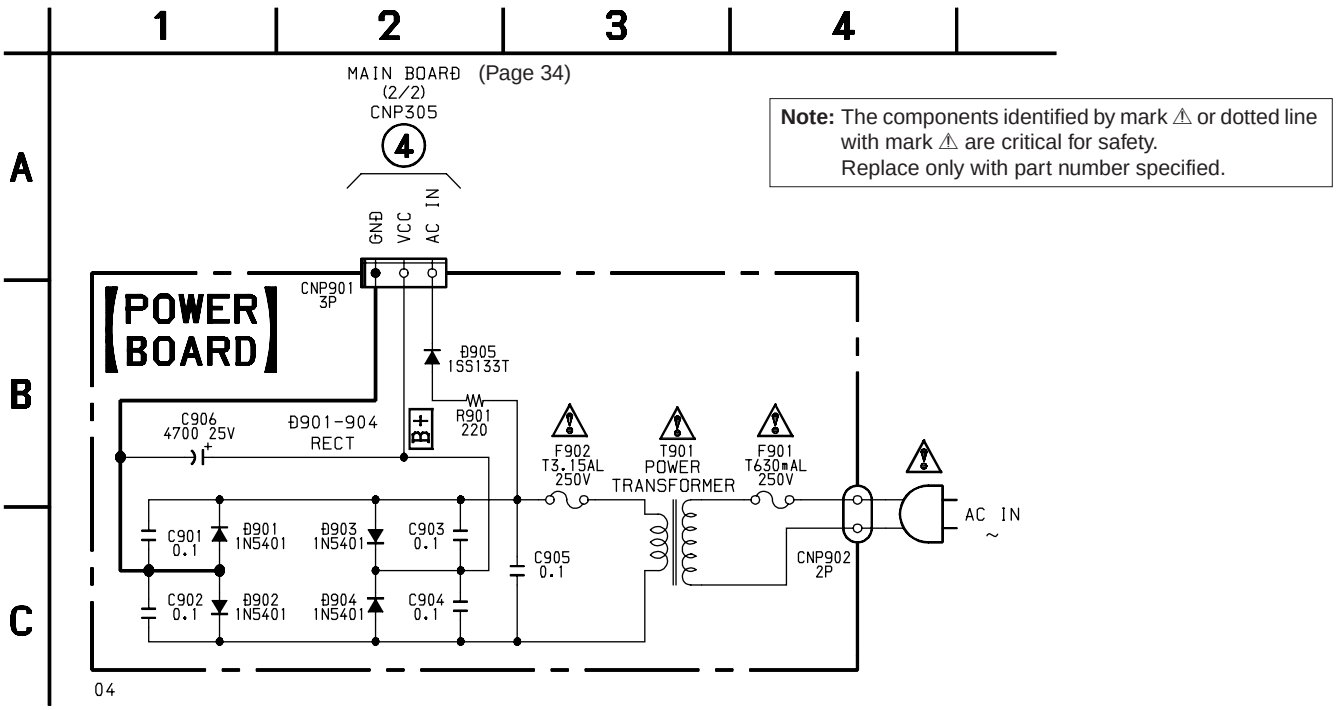


6-12. PRINTED WIRING BOARD — POWER SUPPLY SECTION —

• **Refer to page 16 for Circuit Boards Location.**



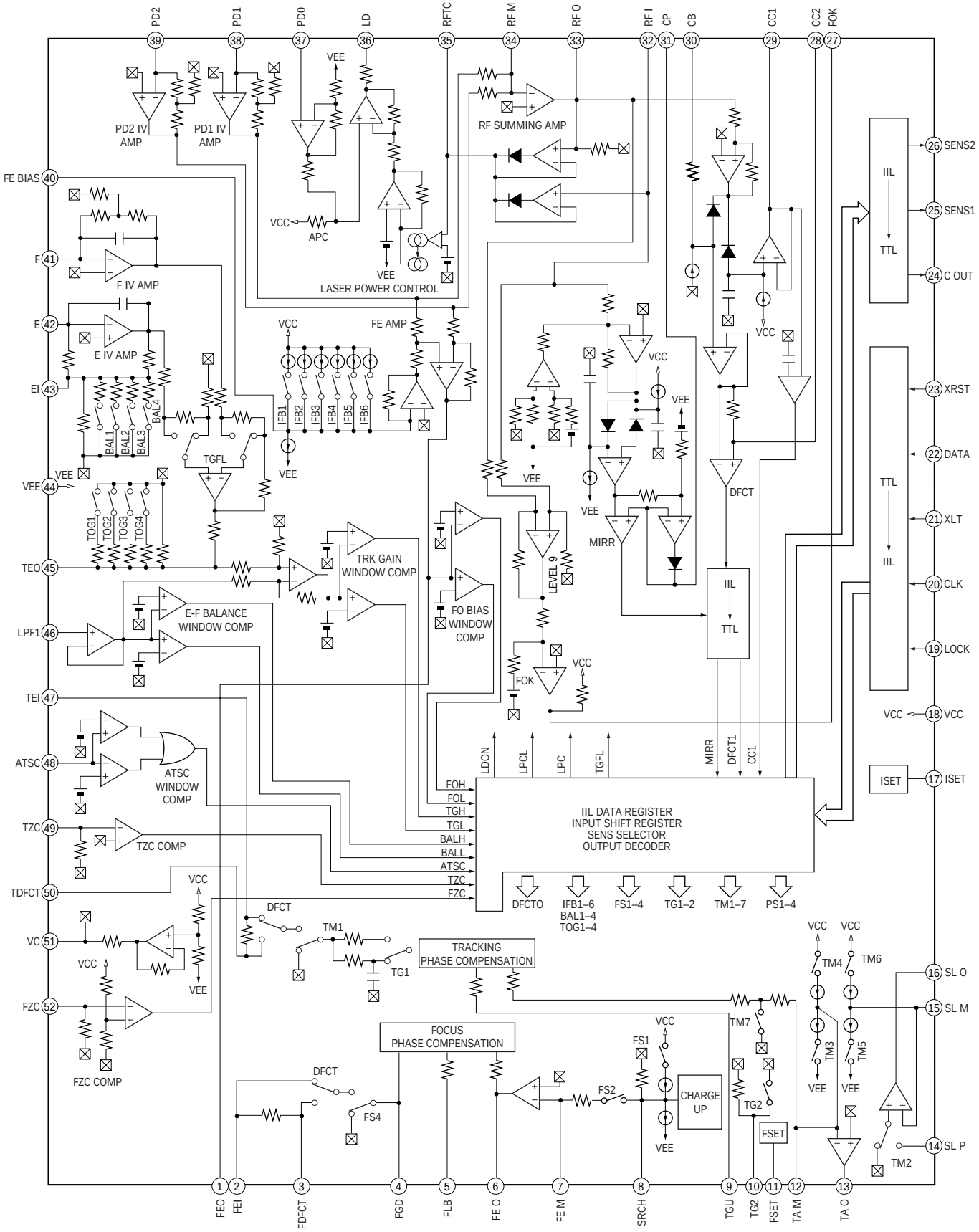
6-13. SCHEMATIC DIAGRAM — POWER SUPPLY SECTION —



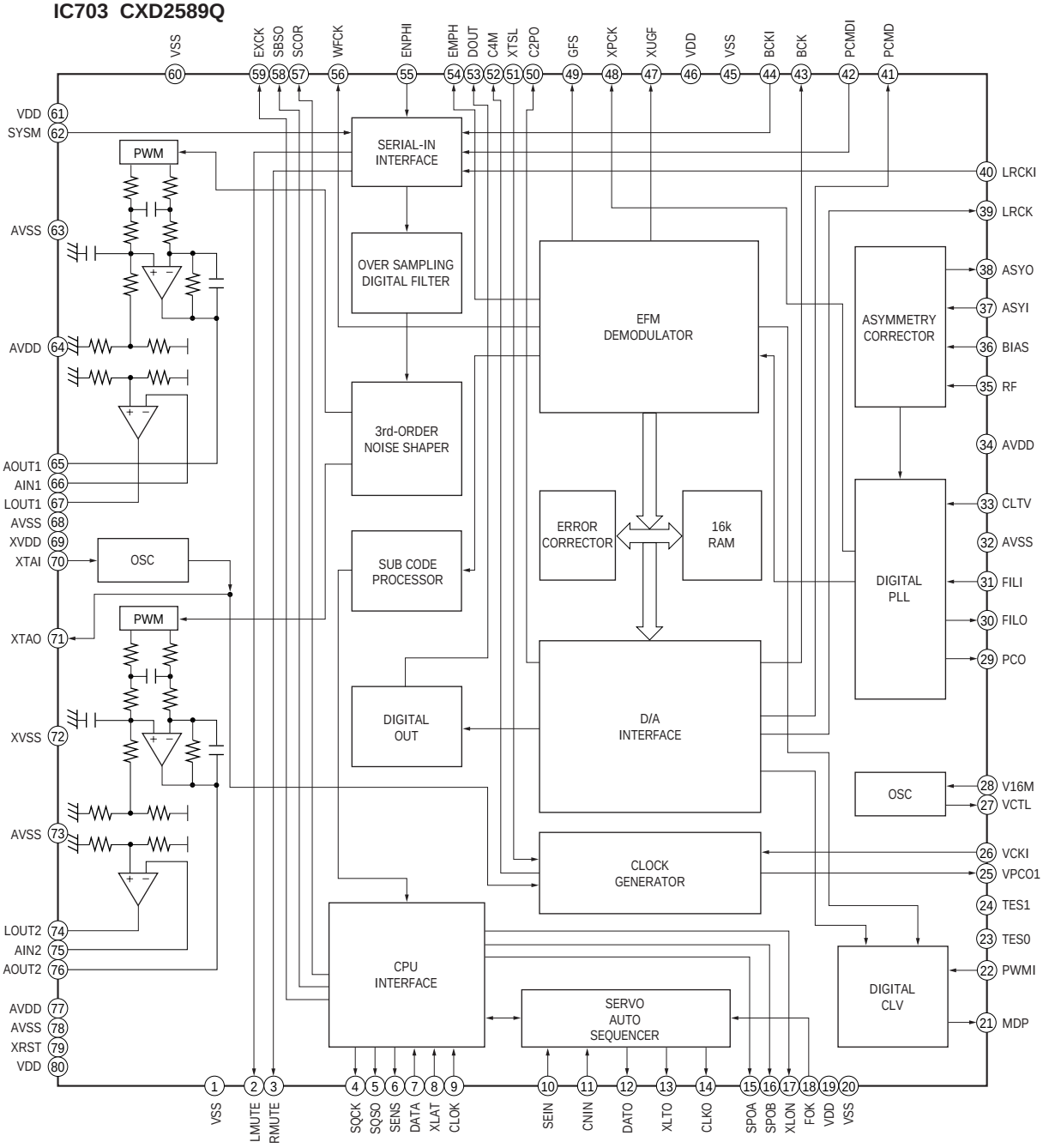
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

• **IC Block Diagrams**

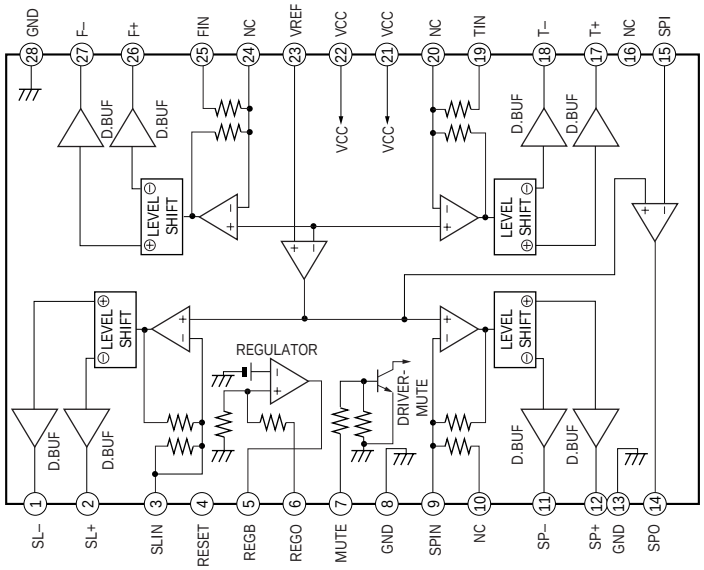
IC701 CXA1992BR



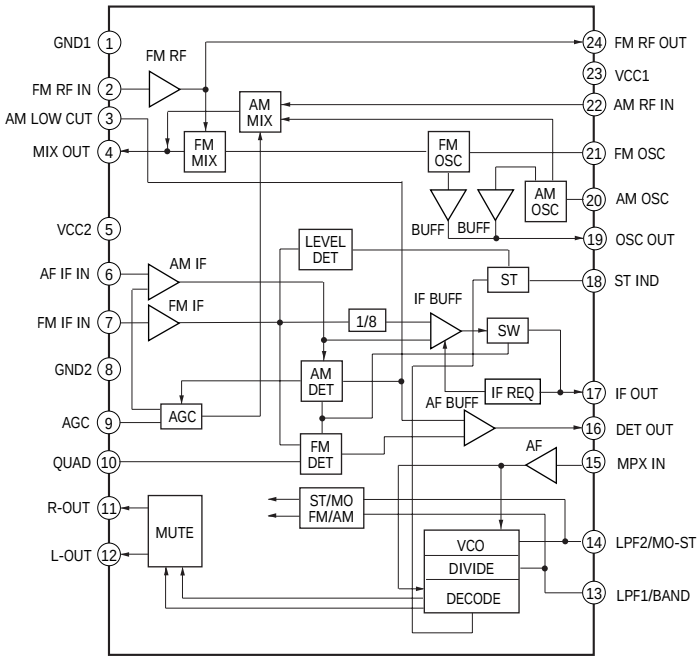
IC703 CXD2589Q



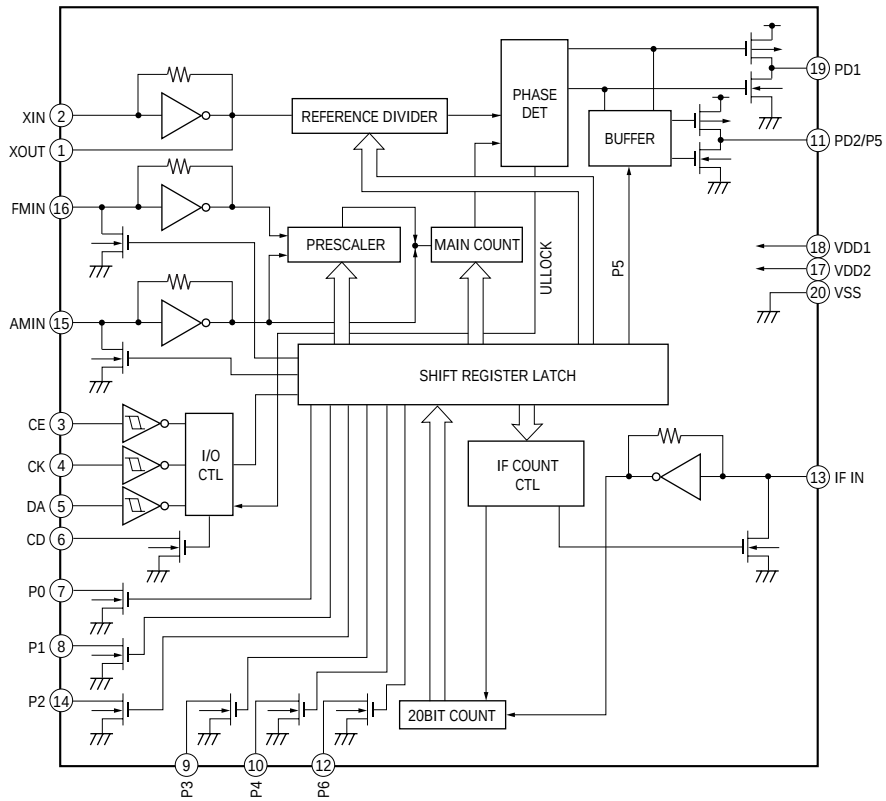
IC702 BA6898FP



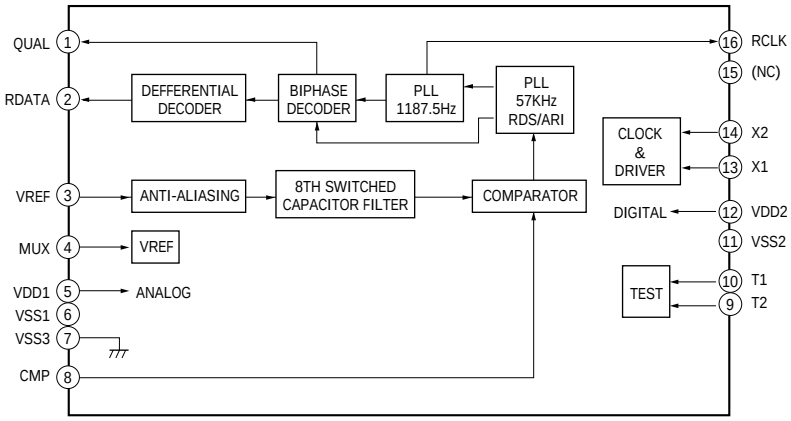
IC1 TA2104BN



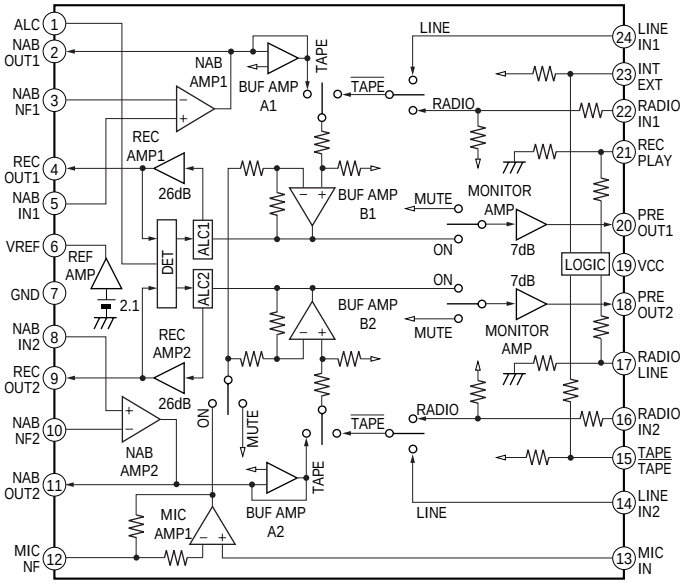
IC2 BU2615S



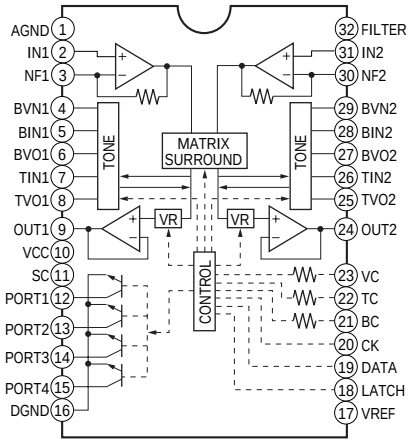
IC3 BU1924



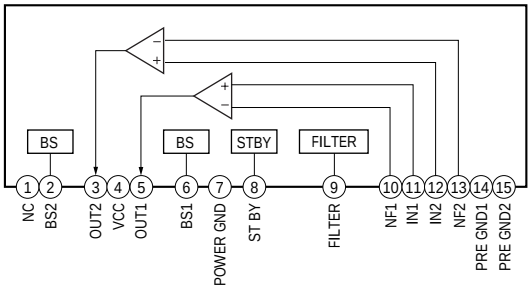
IC301 TA2068N



IC302 BH3854AFS



IC303 BA5417

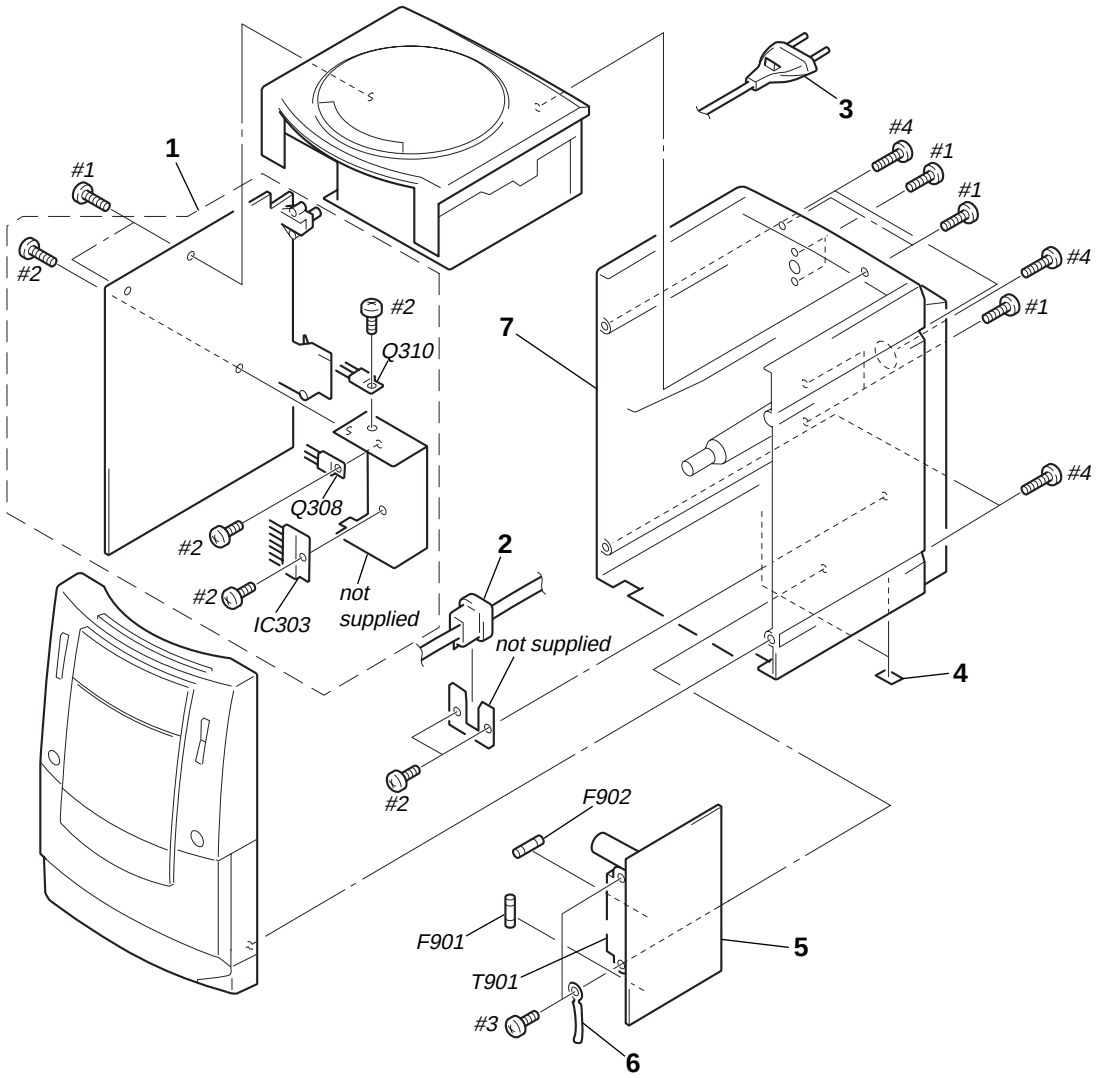


SECTION 7
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories and packing materials and hardware (# mark) list are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

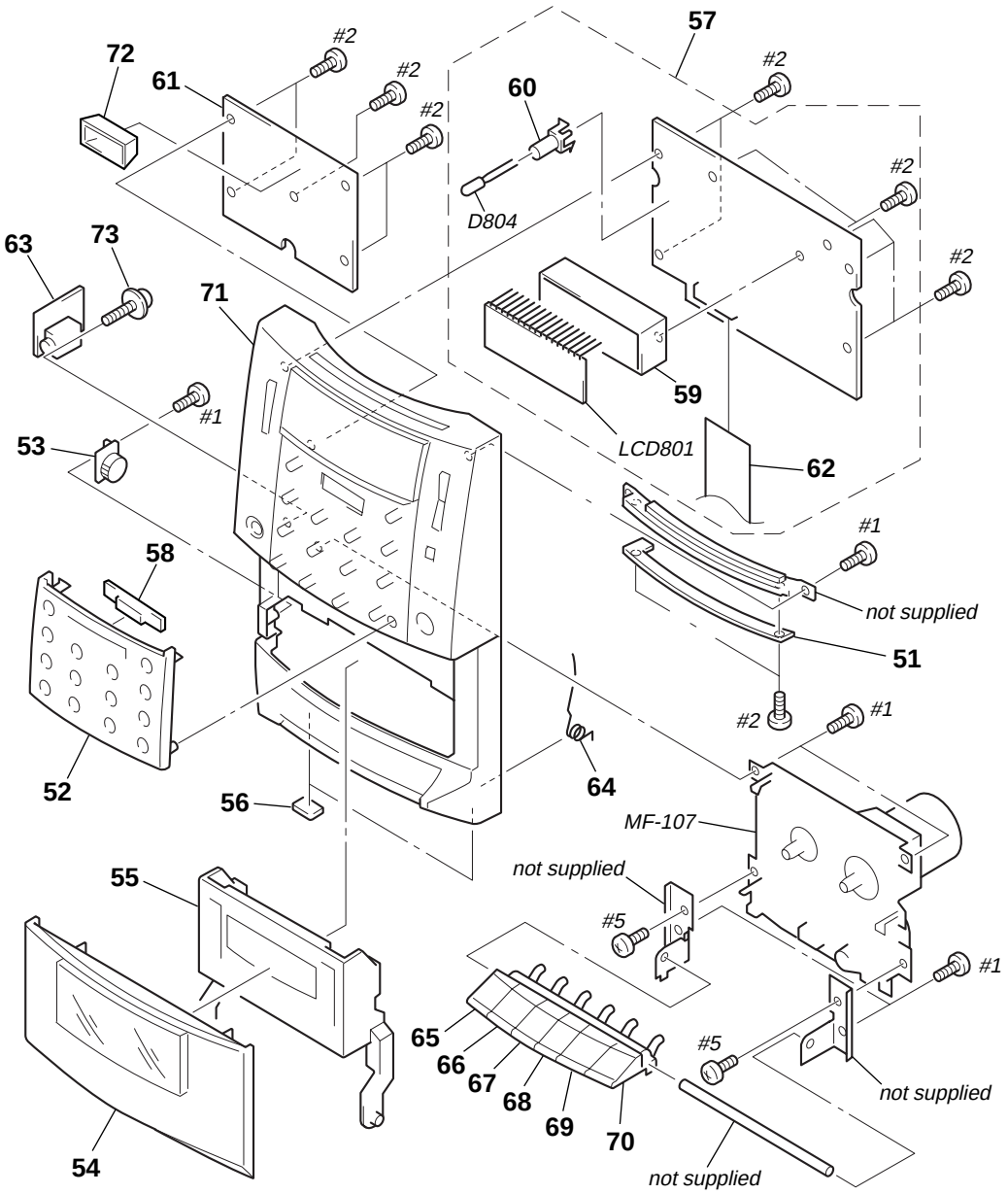
7-1. CABINET (REAR) SECTION



Ref. No.	Part No.	Description	Remark
* 1	A-3322-170-A	MAIN BOARD, COMPLETE	
2	3-703-244-00	BUSHING (2104), CORD	
⚠3	1-575-651-21	CORD, POWER	
4	3-026-310-01	FOOT	
* 5	1-674-304-11	POWER BOARD	
6	3-042-212-01	TAG, SOLDER	
7	3-042-214-01	CABINET (REAR)	

Ref. No.	Part No.	Description	Remark
⚠F901	1-532-500-31	FUSE, TIME-LAG (T630mAL/250V)	
⚠F902	1-532-465-31	FUSE, TIME-LAG (T3.15AL/250V)	
IC303	8-759-426-51	IC BA5417	
Q308	8-729-021-82	TRANSISTOR 2SD2396K	
Q310	8-729-141-83	TRANSISTOR 2SB1094-LK	
⚠T901	1-431-972-11	TRANSFORMER, POWER	

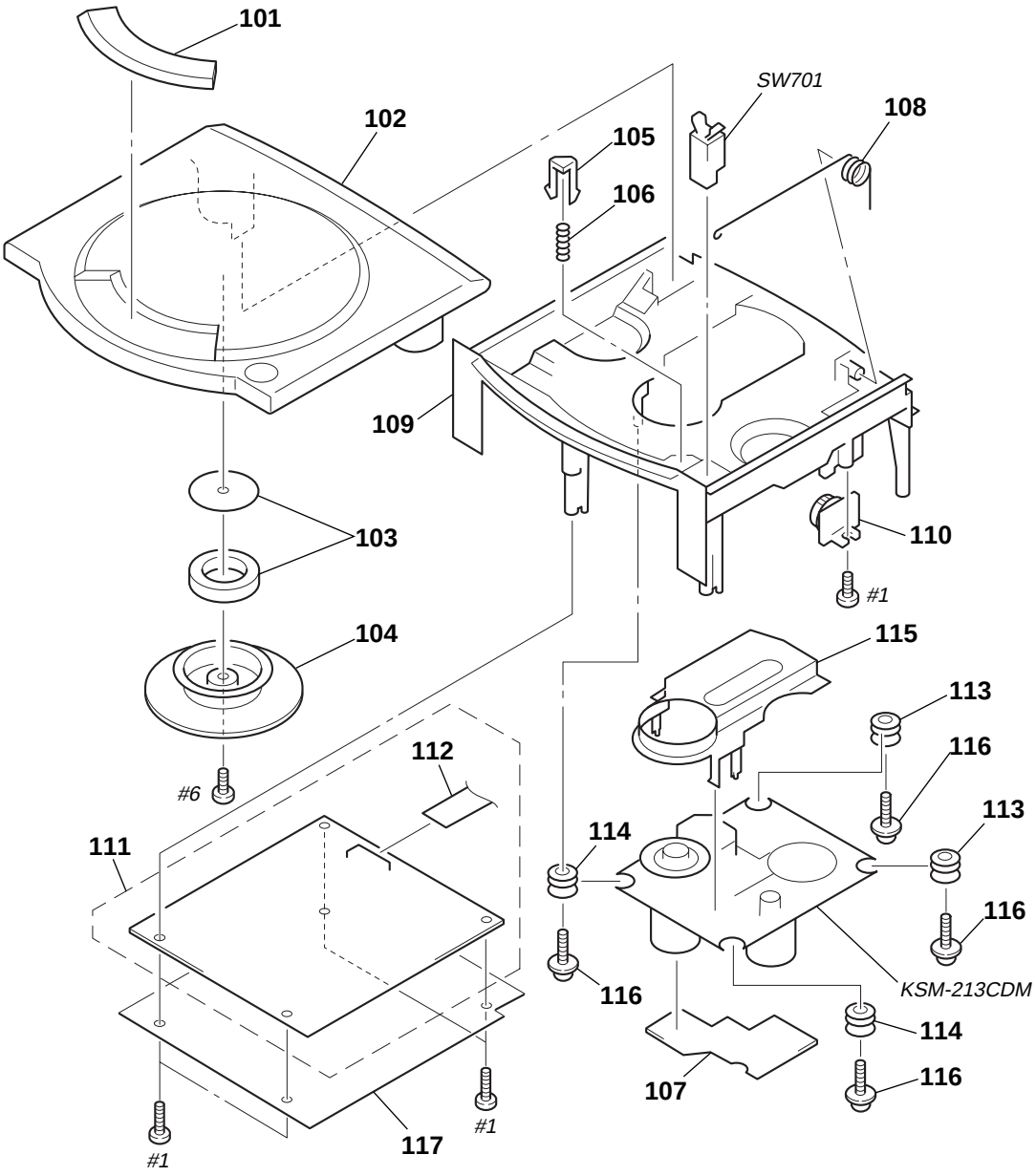
7-2. CABINET (FRONT) SECTION



Ref. No.	Part No.	Description	Remark
* 51	1-674-300-11	BACK LIGHT BOARD	
52	3-042-215-01	COVER (FRONT)	
53	3-926-926-01	GEAR, DAMPER	
54	A-3328-449-A	CASSETTE ASSY, DOOR	
55	3-025-499-01	HOLDER, CASSETTE	
56	3-026-310-01	FOOT	
* 57	A-3322-164-A	CONTROL BOARD, COMPLETE	
58	3-039-911-01	LENS, RDS	
* 59	3-039-913-01	HOLDER, LCD	
* 60	3-039-914-01	HOLDER, LED	
* 61	A-3322-163-A	KEY BOARD, COMPLETE	
62	1-791-980-11	CABLE, FFC 23P	
* 63	1-674-299-11	HEADPHONE BOARD	

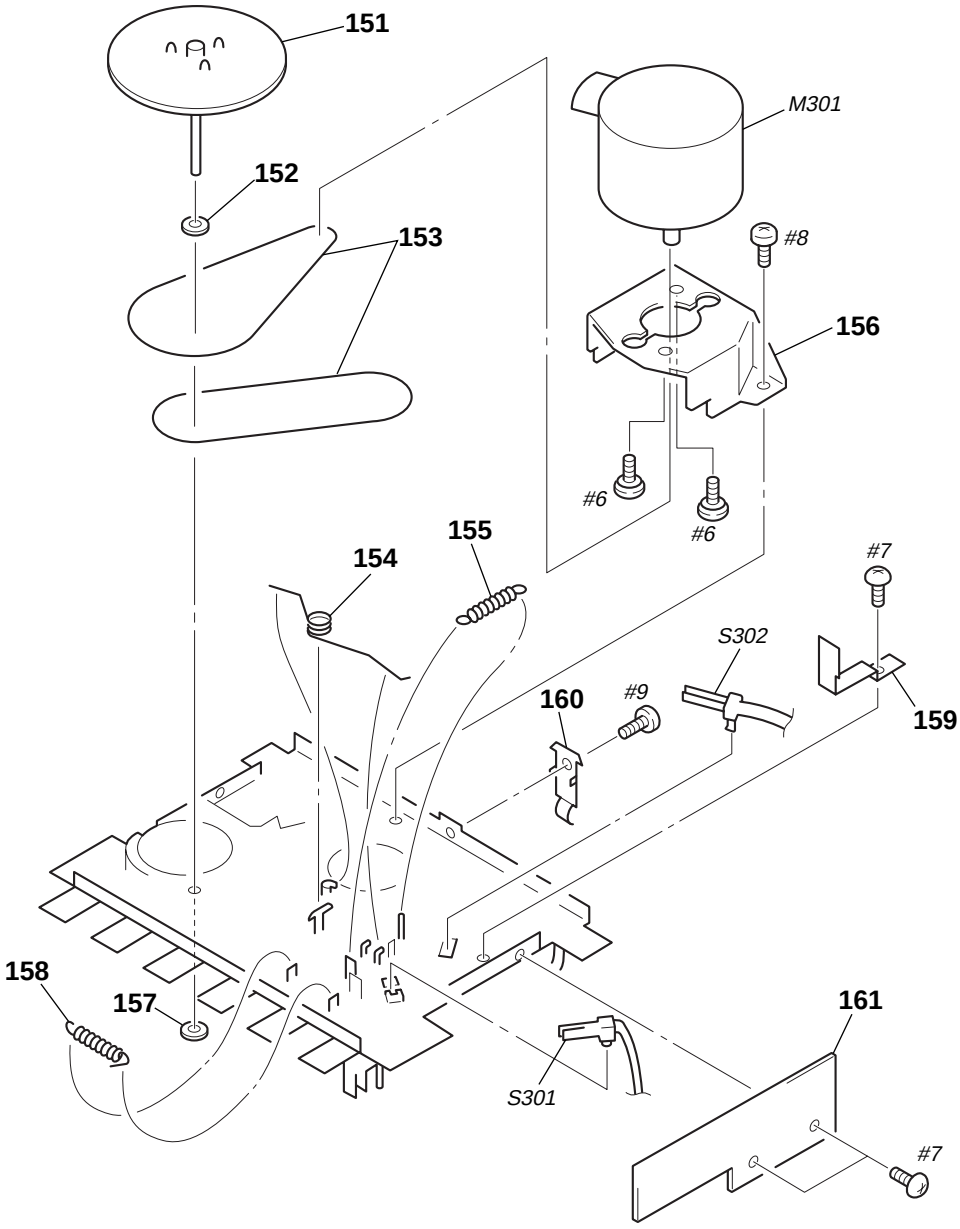
Ref. No.	Part No.	Description	Remark
64	3-026-322-01	SPRING, CASSETTE UP	
65	3-025-508-01	BUTTON (REC)	
66	3-025-511-01	BUTTON (PLAY)	
67	3-025-510-01	BUTTON (REW)	
68	3-025-509-01	BUTTON (FF)	
69	3-025-512-01	BUTTON (STOP)	
70	3-025-507-01	BUTTON (PAUSE)	
71	3-042-216-01	CABINET (FRONT)	
72	3-039-915-01	LENS (RDS HOLDER)	
73	4-960-167-01	SCREW (3X8) (DIA. 10)	
D804	8-719-989-85	LED SLR34VR3FM.N (STANDBY)	
LCD801	1-803-762-11	DISPLAY PANEL, LIQUID CRYSTAL	

7-3. CABINET (UPPER) SECTION



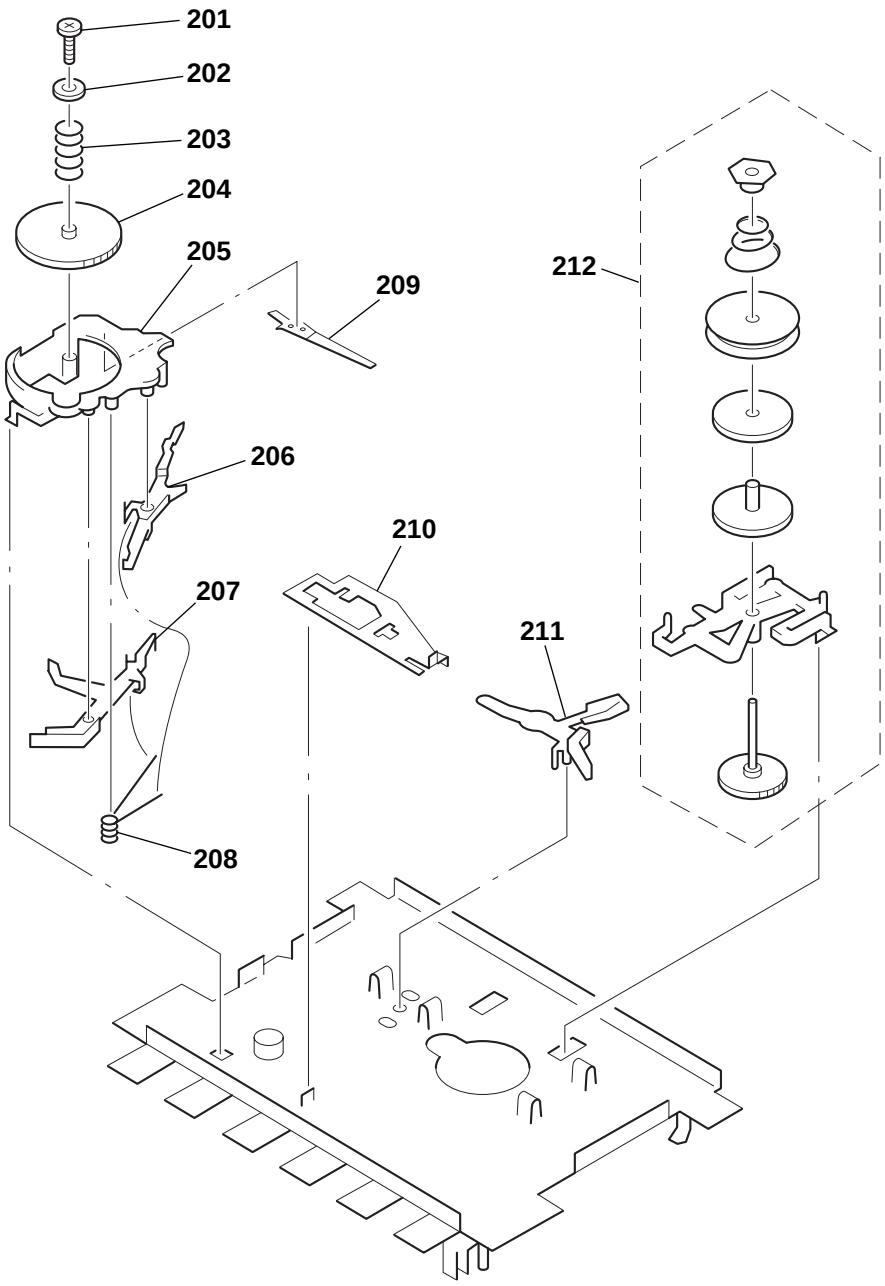
Ref. No.	Part No.	Description	Remark
101	3-025-506-01	WINDOW, CD	
102	3-025-505-01	CD LID	
103	1-452-732-11	MAGNET	
104	3-021-020-01	PLATE, CHUCKING	
105	3-026-314-01	BRACKET (LIFT)	
106	3-026-325-01	SPRING (COMP)	
107	1-658-023-31	CD MOTOR BOARD	
108	3-026-315-01	SPRING, CD UP	
109	3-025-504-01	CABINET (UPPER)	
110	3-926-926-01	GEAR, DAMPER	
* 111	A-3322-168-A	CD BOARD, COMPLETE	
112	1-769-824-11	WIRE (FLAT TYPE) (16 CORE)	
113	3-022-370-01	RUBBER, VIBRATION PROOF	
114	3-022-370-11	RUBBER, VIBRATION PROOF	
115	3-923-736-01	COVER, CD	
116	3-916-006-01	SCREW (2.6X16)	
117	3-042-213-01	SHEET, PLASTIC	
SW701	1-692-960-11	SWITCH, PUSH (1 KEY) (CD DOOR)	

7-4. TAPE MECHANISM SECTION-1
(MF-107)



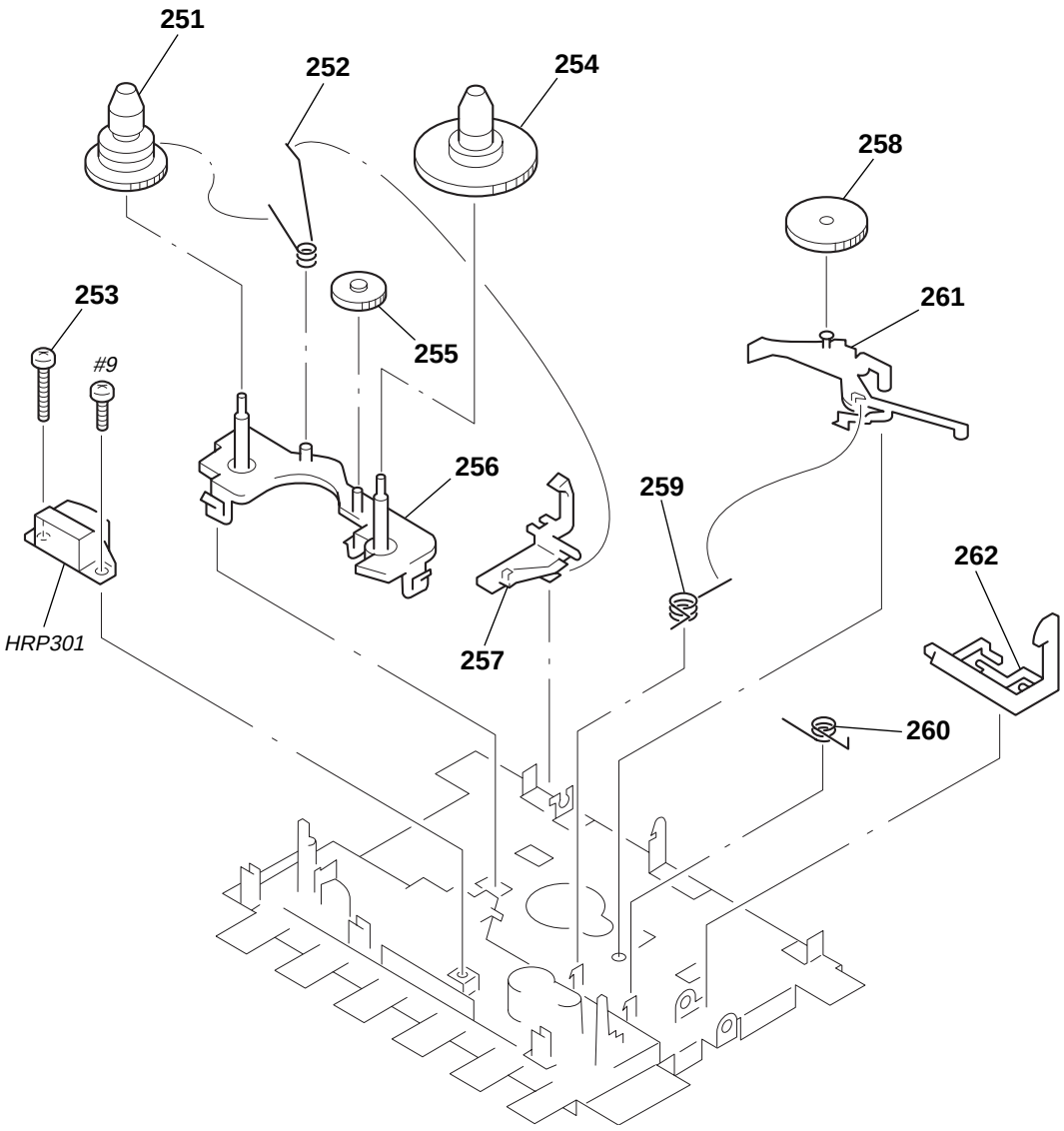
Ref. No.	Part No.	Description	Remark
151	3-907-720-01	FW ASSY	
152	3-369-961-01	WASHER	
153	3-362-989-01	BELT	
154	3-362-970-01	SPRING	
155	3-362-971-01	SPRING	
* 156	3-362-988-01	HOLDER, MOTOR	
157	3-362-980-01	WASHER	
158	3-379-843-01	SPRING	
159	3-026-316-01	SPRING, REC	
160	3-362-967-01	SPRING, CASSETTE	
* 161	1-674-298-11	REC SW BOARD	
M301	X-3365-538-1	MOTOR ASSY (CAPSTAN/REEL)	
S301	1-571-556-11	SWITCH, LEAF (MD POWER)	
S302	1-571-556-11	SWITCH, LEAF (MD PLAY)	

7-5. TAPE MECHANISM SECTION-2 (MF-107)



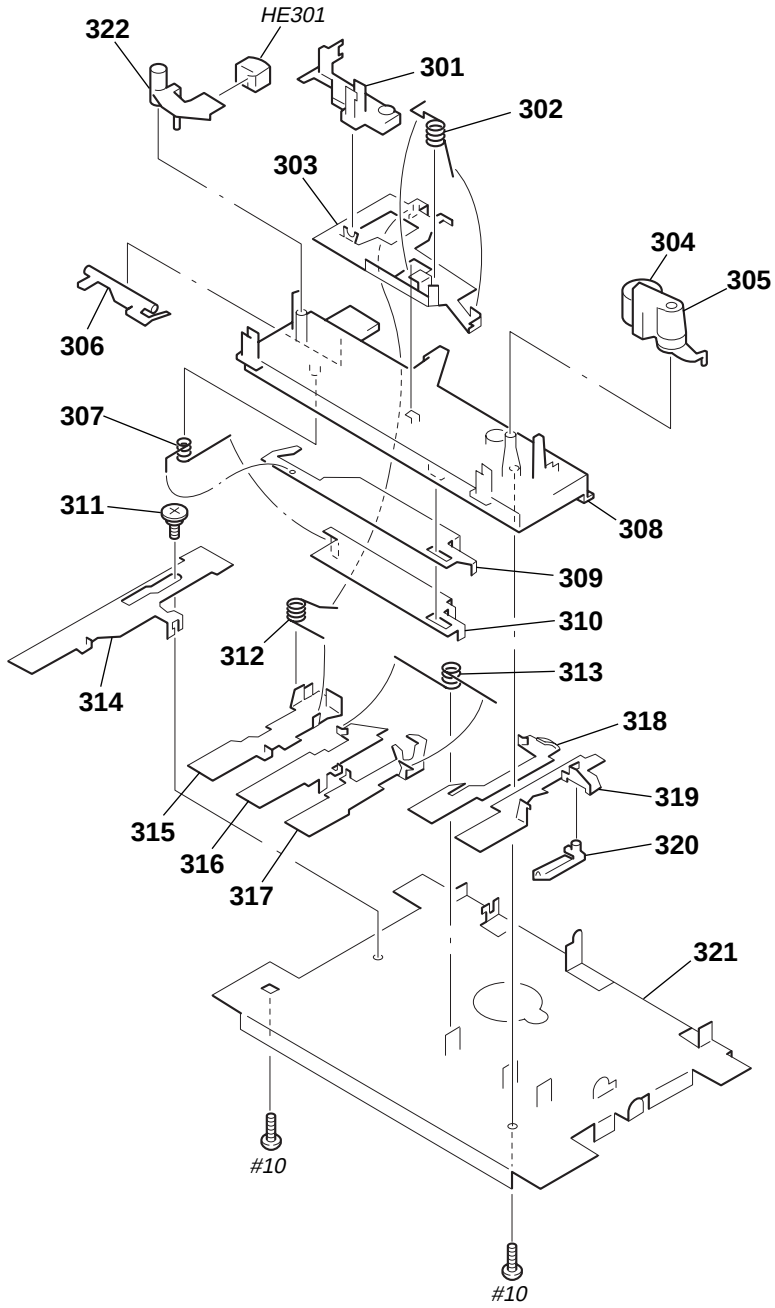
Ref. No.	Part No.	Description	Remark
201	3-366-352-01	SCREW	
202	3-369-961-01	WASHER	
203	3-369-962-01	SPRING, COMPRESSION	
204	X-3363-315-1	GEAR ASSY, CAM	
205	3-362-973-01	AS (BASE)	
206	3-362-976-01	LEVER, CONTROL	
207	3-362-975-01	LEVER, SENSOR	
208	3-362-977-01	SPRING	
209	3-362-978-01	SPRING, PLATE	
210	3-379-844-01	PLATE, STOP, FR	
211	3-387-697-01	SENSOR	
212	3-362-969-01	IDLER ASSY, PF	

7-6. TAPE MECHANISM SECTION-3
(MF-107)



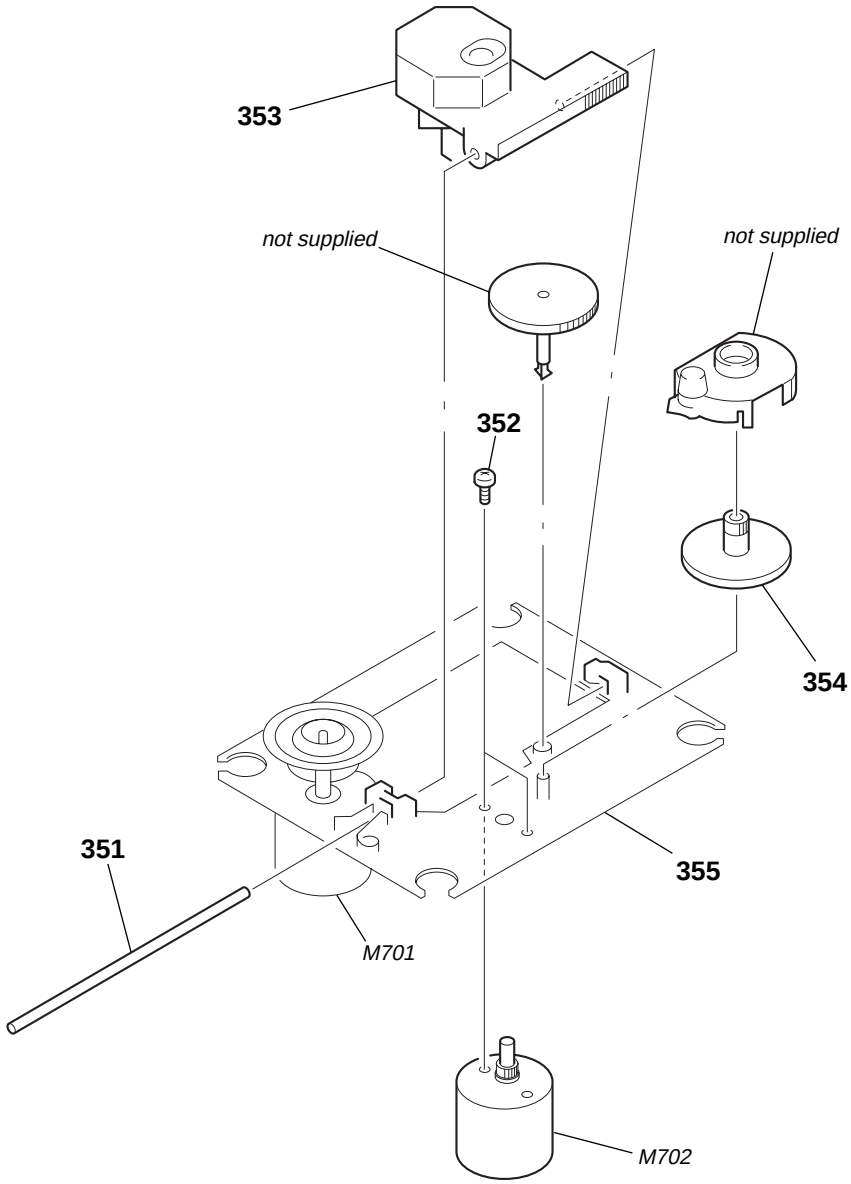
Ref. No.	Part No.	Description	Remark
251	X-3363-611-1	REEL ASSY, S	
252	3-917-805-01	SPRING	
253	3-382-408-01	SCREW	
254	3-362-962-01	REEL ASSY, T	
255	3-362-965-01	IDLER, FF	
256	3-362-961-01	SPINDLE (BASE)	
257	3-362-966-01	INTER LOCK	
258	3-362-960-01	PULLEY, IDLER	
259	3-362-956-01	SPRING	
260	3-362-957-01	SPRING	
261	3-362-959-01	ARM, IDLER	
262	3-362-968-01	LEVER, EJECT	
HRP301	1-543-964-12	HEAD, MAGNETIC (RECORD/PLAYBACK)	

7-7. TAPE MECHANISM SECTION-4 (MF-107)



Ref. No.	Part No.	Description	Remark
301	3-382-409-01	GUIDE TAPE AZ	
302	3-362-983-01	SPRING	
303	3-382-407-01	BASE HEAD	
304	3-362-982-01	PINCH ROLLER	
305	3-362-981-01	PINCH ARM	
306	3-362-944-01	STOPPER, REC	
307	3-362-945-01	SPRING	
308	3-362-942-01	FRAME ASSY	
* 309	3-362-943-01	PLATE, FUNCTION	
* 310	3-362-946-01	LEVER, SW	
311	3-362-958-01	SCREW	
312	3-362-954-01	SPRING	
313	3-362-955-01	SPRING	
* 314	3-362-947-01	LEVER, REC	
* 315	3-362-948-01	LEVER, PLAY	
* 316	3-362-949-01	LEVER, REW	
* 317	3-362-950-01	LEVER, FF	
* 318	3-362-951-01	LEVER, SE	
* 319	3-362-952-01	LEVER, PAUSE	
320	3-362-953-01	ARM, PAUSE	
* 321	3-362-941-01	CHASSIS	
322	3-362-987-01	ARM, EH	
HE301	1-543-876-11	HEAD (ERASE)	

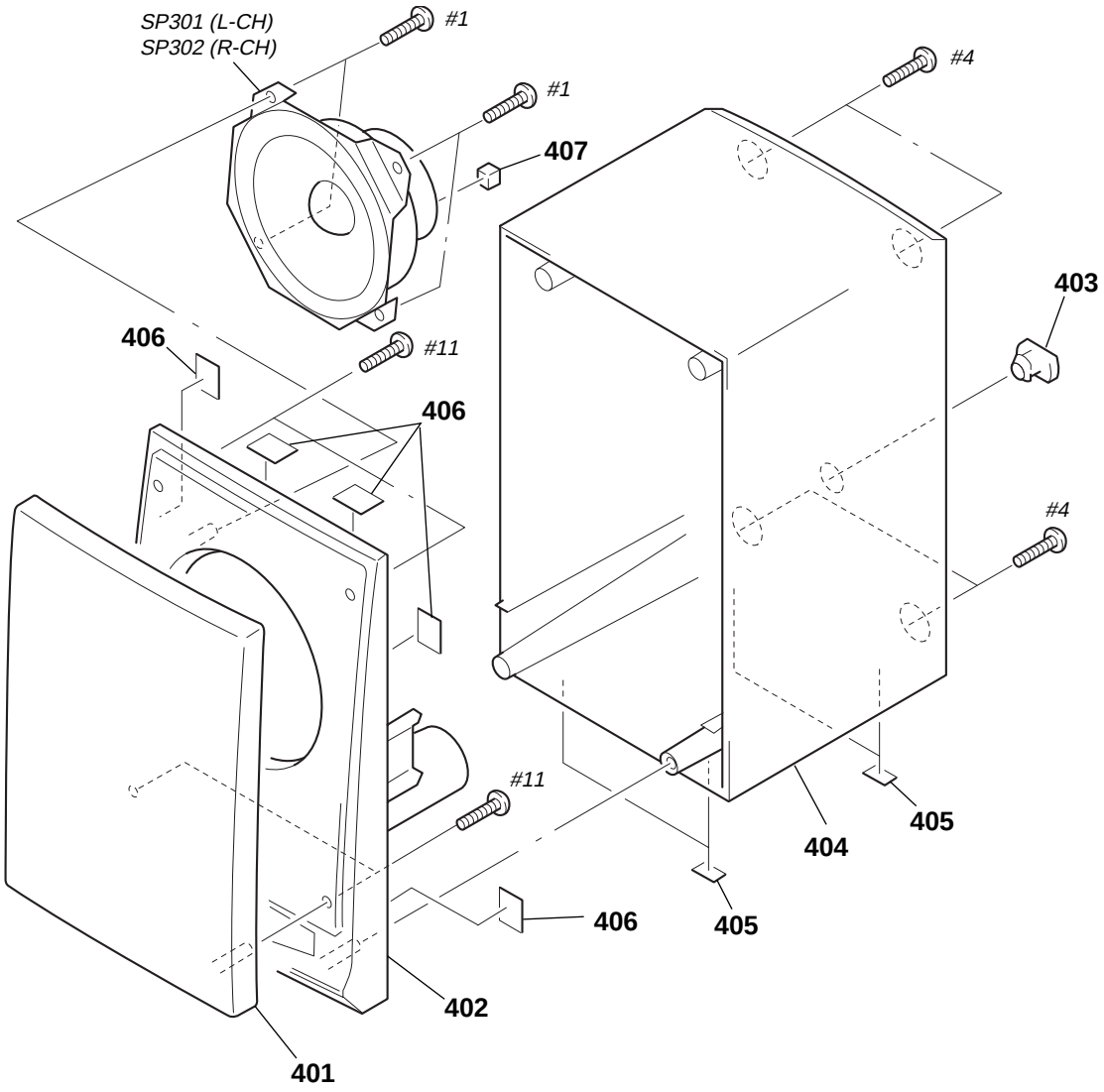
7-8. OPTICAL PICK-UP SECTION (KSM-213CDM)



The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
351	2-626-908-01	SHAFT, SLED	
352	3-713-786-51	SCREW +P 2X3	
⚠353	8-848-483-05	PICK-UP, OPTICAL KSS-213C	
354	2-627-003-02	GEAR (B) (RP)	
355	X-2626-202-1	CHASSIS ASSY (MB), MOTOR (SPINDLE) (INCLUDING M701)	
M702	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	

7-9. SPEAKER SECTION



Ref. No.	Part No.	Description	Remark
401	A-3328-452-A	NET ASSY, SPEAKER	
402	3-025-513-01	CABINET, SPEAKER (FRONT)	
* 403	3-933-229-01	STOPPER, CORD	
404	3-025-514-01	CABINET, SPEAKER (REAR)	
405	3-026-310-01	FOOT	

Ref. No.	Part No.	Description	Remark
* 406	3-026-158-01	SPACER (SOURCE)	
407	3-918-371-01	CUSHION	
SP301	1-505-395-21	SPEAKER (10cm) (L-CH)	
SP302	1-505-395-21	SPEAKER (10cm) (R-CH)	

SECTION 8
ELECTRICAL PARTS LIST

BACK LIGHT **CD**

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation
  CET : East European & CIS model
  IT : Italian model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	1-674-300-11	BACK LIGHT BOARD			
		**********			
		< CONNECTOR >			
CNP804	1-580-163-11	PIN, CONNECTOR (PC BOARD) 2P			
		< SWITCH >			
S805	1-762-196-21	SWITCH, TACTILE (SNOOZE)			
S806	1-762-196-21	SWITCH, TACTILE (SNOOZE)			
**********					
*	A-3322-168-A	CD BOARD, COMPLETE			
		**********			
	1-769-824-11	WIRE (FLAT TYPE) (16 CORE)			
		< CAPACITOR >			
C701	1-162-600-11	CERAMIC	0.0047uF	20%	16V
C702	1-162-306-11	CERAMIC	0.01uF	30%	16V
C703	1-130-481-00	MYLAR	0.0068uF	5%	50V
C704	1-130-491-00	MYLAR	0.047uF	5%	50V
C705	1-162-306-11	CERAMIC	0.01uF	30%	16V
C706	1-104-664-11	ELECT	47uF	20%	10V
C707	1-161-494-00	CERAMIC	0.022uF		25V
C708	1-130-495-00	MYLAR	0.1uF	5%	50V
C709	1-164-159-21	CERAMIC	0.1uF		50V
C710	1-162-302-11	CERAMIC	0.0022uF	20%	16V
C711	1-162-199-31	CERAMIC	10PF	5%	50V
C712	1-162-294-31	CERAMIC	0.001uF	10%	50V
C713	1-130-495-00	MYLAR	0.1uF	5%	50V
C714	1-164-159-21	CERAMIC	0.1uF		50V
C715	1-126-233-11	ELECT	22uF	20%	50V
C716	1-130-495-00	MYLAR	0.1uF	5%	50V
C717	1-130-483-00	MYLAR	0.01uF	5%	50V
C718	1-124-907-11	ELECT	10uF	20%	50V
C719	1-104-664-11	ELECT	47uF	20%	10V
C720	1-130-483-00	MYLAR	0.01uF	5%	50V
C721	1-130-489-00	MYLAR	0.033uF	5%	50V
C722	1-130-489-00	MYLAR	0.033uF	5%	50V
C723	1-162-306-11	CERAMIC	0.01uF	30%	16V
C724	1-130-489-00	MYLAR	0.033uF	5%	50V
C725	1-130-486-00	MYLAR	0.018uF	10%	50V
C726	1-164-159-21	CERAMIC	0.1uF		50V
C727	1-162-199-31	CERAMIC	10PF	5%	50V
C728	1-104-664-11	ELECT	47uF	20%	10V
C729	1-126-962-11	ELECT	3.3uF	20%	50V
C730	1-130-493-00	MYLAR	0.068uF	5%	50V
C731	1-162-215-31	CERAMIC	47PF	5%	50V
C732	1-130-483-00	MYLAR	0.01uF	5%	50V
C733	1-162-306-11	CERAMIC	0.01uF	30%	16V
C734	1-162-302-11	CERAMIC	0.0022uF	20%	16V
C737	1-162-306-11	CERAMIC	0.01uF	30%	16V
C738	1-162-282-31	CERAMIC	100PF	10%	50V
C739	1-162-282-31	CERAMIC	100PF	10%	50V
C740	1-162-294-31	CERAMIC	0.001uF	10%	50V
C741	1-130-485-00	MYLAR	0.015uF	5%	50V
C742	1-162-306-11	CERAMIC	0.01uF	30%	16V
C743	1-104-664-11	ELECT	47uF	20%	10V
C744	1-124-472-11	ELECT	470uF	20%	10V
C745	1-124-443-00	ELECT	100uF	20%	10V
C748	1-124-443-00	ELECT	100uF	20%	10V
C749	1-162-303-11	CERAMIC	0.0033uF	30%	16V
C750	1-162-282-31	CERAMIC	100PF	10%	50V
C751	1-162-306-11	CERAMIC	0.01uF	30%	16V
C752	1-162-306-11	CERAMIC	0.01uF	30%	16V
C753	1-124-443-00	ELECT	100uF	20%	10V
C754	1-162-292-31	CERAMIC	680PF	10%	50V
C755	1-164-159-21	CERAMIC	0.1uF		50V
C756	1-162-306-11	CERAMIC	0.01uF	30%	16V
C757	1-162-284-31	CERAMIC	150PF	10%	50V
C758	1-162-286-21	CERAMIC	220PF	10%	50V
C759	1-124-443-00	ELECT	100uF	20%	10V
C760	1-136-173-00	FILM	0.47uF	5%	50V
C761	1-162-199-31	CERAMIC	10PF	5%	50V
C762	1-162-282-31	CERAMIC	100PF	10%	50V
C763	1-162-290-31	CERAMIC	470PF	10%	50V
C764	1-162-199-31	CERAMIC	10PF	5%	50V
C765	1-162-286-21	CERAMIC	220PF	10%	50V
C766	1-162-306-11	CERAMIC	0.01uF	30%	16V
C767	1-126-963-11	ELECT	4.7uF	20%	50V
C768	1-162-306-11	CERAMIC	0.01uF	30%	16V
C769	1-136-169-00	FILM	0.22uF	5%	50V
C770	1-126-963-11	ELECT	4.7uF	20%	50V
C772	1-162-306-11	CERAMIC	0.01uF	30%	16V
C773	1-124-443-00	ELECT	100uF	20%	10V
C774	1-162-302-11	CERAMIC	0.0022uF	20%	16V
C775	1-162-306-11	CERAMIC	0.01uF	30%	16V
C776	1-162-306-11	CERAMIC	0.01uF	30%	16V
C777	1-162-306-11	CERAMIC	0.01uF	30%	16V
C778	1-162-292-31	CERAMIC	680PF	10%	50V

CD CD MOTOR

Ref. No.	Part No.	Description			Remark
C779	1-162-284-31	CERAMIC	150PF	10%	50V
C782	1-137-374-11	FILM	0.047uF	5%	50V
C783	1-137-374-11	FILM	0.047uF	5%	50V
		< CONNECTOR >			
CNP701	1-770-168-11	CONNECTOR, FFC/FPC 16P			
* CNP702	1-774-957-11	PIN, CONNECTOR (PC BOARD) 11P			
* CNP703	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
* CNP704	1-580-159-11	PIN, CONNECTOR (PC BOARD) 7P			
		< FERRITE BEAD >			
FB701	1-410-397-21	FERRITE BEAD INDUCTOR			
FB702	1-410-397-21	FERRITE BEAD INDUCTOR			
		< IC >			
IC701	8-752-082-14	IC CXA1992BR			
IC702	8-759-473-42	IC BA6898FP			
IC703	8-752-384-13	IC CXD2589Q			
		< COIL >			
L701	1-410-509-11	INDUCTOR	10uH		
L702	1-410-509-11	INDUCTOR	10uH		
L703	1-410-509-11	INDUCTOR	10uH		
L704	1-410-509-11	INDUCTOR	10uH		
L705	1-410-509-11	INDUCTOR	10uH		
		< TRANSISTOR >			
Q701	8-729-037-13	TRANSISTOR KTA1271Y			
		< RESISTOR >			
R701	1-249-440-11	CARBON	82K	5%	1/4W
R702	1-249-441-11	CARBON	100K	5%	1/4W
R703	1-249-441-11	CARBON	100K	5%	1/4W
R704	1-249-441-11	CARBON	100K	5%	1/4W
R705	1-249-441-11	CARBON	100K	5%	1/4W
R706	1-249-440-11	CARBON	82K	5%	1/4W
R707	1-247-887-00	CARBON	220K	5%	1/4W
R709	1-247-883-00	CARBON	150K	5%	1/4W
R710	1-247-885-00	CARBON	180K	5%	1/4W
R711	1-247-883-00	CARBON	150K	5%	1/4W
R712	1-247-891-00	CARBON	330K	5%	1/4W
R713	1-249-429-11	CARBON	10K	5%	1/4W
R714	1-249-429-11	CARBON	10K	5%	1/4W
R715	1-249-429-11	CARBON	10K	5%	1/4W
R716	1-247-852-11	CARBON	7.5K	5%	1/4W
R717	1-247-903-00	CARBON	1M	5%	1/4W
R718	1-247-899-11	CARBON	680K	5%	1/4W
R719	1-249-393-11	CARBON	10	5%	1/4W
R720	1-249-431-11	CARBON	15K	5%	1/4W
R721	1-249-435-11	CARBON	33K	5%	1/4W
R722	1-247-886-11	CARBON	200K	5%	1/4W
R723	1-247-896-11	CARBON	510K	5%	1/4W
R724	1-249-439-11	CARBON	68K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R725	1-247-883-00	CARBON	150K	5%	1/4W
R726	1-247-883-00	CARBON	150K	5%	1/4W
R727	1-249-437-11	CARBON	47K	5%	1/4W
R728	1-247-885-00	CARBON	180K	5%	1/4W
R729	1-249-430-11	CARBON	12K	5%	1/4W
R730	1-249-435-11	CARBON	33K	5%	1/4W
R731	1-247-863-00	CARBON	22K	5%	1/4W
R732	1-249-417-11	CARBON	1K	5%	1/4W
R733	1-247-843-11	CARBON	3.3K	5%	1/4W
R734	1-247-843-11	CARBON	3.3K	5%	1/4W
R735	1-249-430-11	CARBON	12K	5%	1/4W
R736	1-247-863-00	CARBON	22K	5%	1/4W
R737	1-247-843-11	CARBON	3.3K	5%	1/4W
R738	1-249-435-11	CARBON	33K	5%	1/4W
R741	1-249-417-11	CARBON	1K	5%	1/4W
R742	1-249-417-11	CARBON	1K	5%	1/4W
R743	1-249-430-11	CARBON	12K	5%	1/4W
R744	1-249-417-11	CARBON	1K	5%	1/4W
R745	1-249-417-11	CARBON	1K	5%	1/4W
R746	1-249-417-11	CARBON	1K	5%	1/4W
R747	1-249-428-11	CARBON	8.2K	5%	1/4W
R748	1-247-890-11	CARBON	300K	5%	1/4W
R749	1-249-430-11	CARBON	12K	5%	1/4W
R750	1-249-430-11	CARBON	12K	5%	1/4W
R751	1-249-430-11	CARBON	12K	5%	1/4W
R752	1-249-430-11	CARBON	12K	5%	1/4W
R753	1-249-430-11	CARBON	12K	5%	1/4W
R754	1-247-887-00	CARBON	220K	5%	1/4W
R755	1-249-429-11	CARBON	10K	5%	1/4W
R756	1-247-903-00	CARBON	1M	5%	1/4W
R757	1-249-417-11	CARBON	1K	5%	1/4W
R758	1-249-437-11	CARBON	47K	5%	1/4W
R759	1-249-437-11	CARBON	47K	5%	1/4W
		< VIBRATOR >			
X701	1-579-345-11	VIBRATOR, CERAMIC (16.9344MHz)			
**********					
	1-658-023-31	CD MOTOR BOARD			
		**********			
		< CONNECTOR >			
CNP707	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P			
		< SWITCH >			
S701	1-572-085-11	SWITCH, LEAF (LIMIT)			
**********					

Ref. No.	Part No.	Description			Remark
*	A-3322-164-A	CONTROL BOARD, COMPLETE			
		**********			
	1-791-980-11	CABLE, FFC 23P			
*	3-039-913-01	HOLDER, LCD			
*	3-039-914-01	HOLDER, LED			
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S			
		< CAPACITOR >			
C801	1-162-306-11	CERAMIC	0.01uF	30%	16V
C802	1-162-306-11	CERAMIC	0.01uF	30%	16V
C803	1-162-306-11	CERAMIC	0.01uF	30%	16V
C804	1-162-306-11	CERAMIC	0.01uF	30%	16V
C805	1-162-306-11	CERAMIC	0.01uF	30%	16V
C806	1-162-210-31	CERAMIC	30PF	5%	50V
C807	1-162-210-31	CERAMIC	30PF	5%	50V
C808	1-162-210-31	CERAMIC	30PF	5%	50V
C809	1-162-210-31	CERAMIC	30PF	5%	50V
C810	1-164-159-21	CERAMIC	0.1uF		50V
C811	1-164-159-21	CERAMIC	0.1uF		50V
C813	1-162-294-31	CERAMIC	0.001uF	10%	50V
C814	1-162-294-31	CERAMIC	0.001uF	10%	50V
C815	1-162-294-31	CERAMIC	0.001uF	10%	50V
C816	1-162-282-31	CERAMIC	100PF	10%	50V
C817	1-162-282-31	CERAMIC	100PF	10%	50V
C818	1-162-282-31	CERAMIC	100PF	10%	50V
C820	1-125-705-11	DOUBLE LAYERS	0.22F		5.5V
C821	1-162-205-31	CERAMIC	18PF	5%	50V
C822	1-162-205-31	CERAMIC	18PF	5%	50V
C823	1-124-903-11	ELECT	1uF	20%	50V
C824	1-104-664-11	ELECT	47uF	20%	10V
C825	1-164-159-21	CERAMIC	0.1uF		50V
C826	1-162-306-11	CERAMIC	0.01uF	30%	16V
C827	1-124-907-11	ELECT	10uF	20%	50V
C828	1-126-961-11	ELECT	2.2uF	20%	50V
C829	1-162-306-11	CERAMIC	0.01uF	30%	16V
C830	1-162-306-11	CERAMIC	0.01uF	30%	16V
C831	1-162-306-11	CERAMIC	0.01uF	30%	16V
C832	1-110-671-31	CERAMIC	47000PF		50V
C833	1-124-903-11	ELECT	1uF	20%	50V
C835	1-162-306-11	CERAMIC	0.01uF	30%	16V
C836	1-162-306-11	CERAMIC	0.01uF	30%	16V
C837	1-162-306-11	CERAMIC	0.01uF	30%	16V
C838	1-161-494-00	CERAMIC	0.022uF		25V
		< CONNECTOR >			
* CNP802	1-580-166-11	PIN, CONNECTOR (PC BOARD) 5P			
CNP805	1-568-865-11	PIN, CONNECTOR (PC BOARD) 23P			
* CNP806	1-766-594-11	PIN, CONNECTOR (PC BOARD) 11P			
		< DIODE >			
D801	8-719-991-33	DIODE 1SS133T-77			
D802	8-719-991-33	DIODE 1SS133T-77			
D803	8-719-991-33	DIODE 1SS133T-77			
D804	8-719-989-85	LED SLR34VR3FM.N (STANDBY)			
D805	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC801	8-752-909-10	IC CXP83232A-015Q			
IC802	8-759-339-53	IC GP1U28XB			
IC803	8-759-708-05	IC NJM78L05A			
IC804	8-759-165-86	IC PST600I-T			
		< COIL >			
L801	1-410-087-31	INDUCTOR	10mH		
L804	1-419-150-11	COIL, PEAKING	10uH		
		< LIQUID CRYSTAL DISPLAY >			
LCD801	1-803-762-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< TRANSISTOR >			
Q801	8-729-922-66	TRANSISTOR 2SC2410SN			
Q802	8-729-922-66	TRANSISTOR 2SC2410SN			
Q803	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q805	8-729-029-94	TRANSISTOR DTC143TSA			
Q807	8-729-230-45	TRANSISTOR 2SC2458-YGR			
		< RESISTOR >			
R801	1-247-843-11	CARBON	3.3K	5%	1/4W
R802	1-249-420-11	CARBON	1.8K	5%	1/4W
R803	1-249-418-11	CARBON	1.2K	5%	1/4W
R804	1-249-416-11	CARBON	820	5%	1/4W
R805	1-249-415-11	CARBON	680	5%	1/4W
R806	1-249-427-11	CARBON	6.8K	5%	1/4W
R807	1-249-437-11	CARBON	47K	5%	1/4W
R808	1-249-437-11	CARBON	47K	5%	1/4W
R809	1-249-437-11	CARBON	47K	5%	1/4W
R810	1-249-441-11	CARBON	100K	5%	1/4W
R811	1-249-403-11	CARBON	68	5%	1/4W
R812	1-249-429-11	CARBON	10K	5%	1/4W
R813	1-249-417-11	CARBON	1K	5%	1/4W
R814	1-249-415-11	CARBON	680	5%	1/4W
R815	1-249-441-11	CARBON	100K	5%	1/4W
R816	1-249-427-11	CARBON	6.8K	5%	1/4W
R817	1-247-815-00	CARBON	220	5%	1/4W
R818	1-247-887-00	CARBON	220K	5%	1/4W
R825	1-249-429-11	CARBON	10K	5%	1/4W
R832	1-249-429-11	CARBON	10K	5%	1/4W
R835	1-249-413-11	CARBON	470	5%	1/4W
R836	1-249-421-11	CARBON	2.2K	5%	1/4W
R837	1-249-417-11	CARBON	1K	5%	1/4W
R839	1-249-417-11	CARBON	1K	5%	1/4W
R840	1-249-417-11	CARBON	1K	5%	1/4W
R841	1-249-417-11	CARBON	1K	5%	1/4W
R842	1-249-417-11	CARBON	1K	5%	1/4W
R843	1-249-417-11	CARBON	1K	5%	1/4W
R844	1-249-417-11	CARBON	1K	5%	1/4W

CONTROL | HEADPHONE | KEY

Ref. No.	Part No.	Description			Remark
R845	1-249-417-11	CARBON	1K	5%	1/4W
R846	1-249-417-11	CARBON	1K	5%	1/4W
R847	1-249-417-11	CARBON	1K	5%	1/4W
R848	1-249-417-11	CARBON	1K	5%	1/4W
R849	1-249-417-11	CARBON	1K	5%	1/4W
R850	1-249-417-11	CARBON	1K	5%	1/4W
R851	1-249-429-11	CARBON	10K	5%	1/4W
R852	1-249-429-11	CARBON	10K	5%	1/4W
R853	1-249-417-11	CARBON	1K	5%	1/4W
R854	1-249-417-11	CARBON	1K	5%	1/4W
R855	1-249-417-11	CARBON	1K	5%	1/4W
R856	1-249-417-11	CARBON	1K	5%	1/4W
R857	1-249-417-11	CARBON	1K	5%	1/4W
R858	1-249-417-11	CARBON	1K	5%	1/4W
R859	1-249-417-11	CARBON	1K	5%	1/4W
R860	1-249-429-11	CARBON	10K	5%	1/4W
R861	1-249-441-11	CARBON	100K	5%	1/4W
R862	1-249-417-11	CARBON	1K	5%	1/4W
R863	1-249-441-11	CARBON	100K	5%	1/4W
R864	1-249-429-11	CARBON	10K	5%	1/4W
R865	1-249-429-11	CARBON	10K	5%	1/4W
R866	1-249-425-11	CARBON	4.7K	5%	1/4W
R867	1-249-425-11	CARBON	4.7K	5%	1/4W
R868	1-249-425-11	CARBON	4.7K	5%	1/4W
R869	1-249-425-11	CARBON	4.7K	5%	1/4W
R870	1-247-807-11	CARBON	100	5%	1/4W
R871	1-249-429-11	CARBON	10K	5%	1/4W
R872	1-247-815-00	CARBON	220	5%	1/4W
R873	1-260-076-11	CARBON	10	5%	1/2W
R874	1-247-807-11	CARBON	100	5%	1/4W
R875	1-249-417-11	CARBON	1K	5%	1/4W
R876	1-249-417-11	CARBON	1K	5%	1/4W
R877	1-249-417-11	CARBON	1K	5%	1/4W
R878	1-249-417-11	CARBON	1K	5%	1/4W
R879	1-247-807-11	CARBON	100	5%	1/4W
R880	1-249-437-11	CARBON	47K	5%	1/4W
R881	1-249-401-11	CARBON	47	5%	1/4W
R882	1-249-417-11	CARBON	1K	5%	1/4W
R883	1-249-406-11	CARBON	120	5%	1/4W
		< SWITCH >			
S801	1-762-196-21	SWITCH, TACTILE (MEGA BASS)			
S802	1-762-196-21	SWITCH, TACTILE (VOLUME –)			
S803	1-762-196-21	SWITCH, TACTILE (VOLUME +)			
S807	1-762-196-21	SWITCH, TACTILE (OPERATE)			
		< VIBRATOR >			
X801	1-567-132-00	OSCILLATOR, CERAMIC (8MHz)			
X802	1-760-305-11	VIBRATOR, CRYSTAL (32.768kHz)			

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Ref. No.	Part No.	Description			Remark
*	1-674-299-11	HEADPHONE BOARD			
		**********			
		< CONNECTOR >			
* CNP308	1-564-520-11	PLUG, CONNECTOR 5P			
		< JACK >			
J302	1-568-267-11	JACK (PHONES)			
		< COIL >			
L101	1-410-521-11	INDUCTOR	100uH		
L201	1-410-521-11	INDUCTOR	100uH		
L301	1-410-501-11	INDUCTOR	2.2uH		
		< RESISTOR >			
R118	1-249-404-00	CARBON	82	5%	1/4W
R218	1-249-404-00	CARBON	82	5%	1/4W

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*	A-3322-163-A	KEY BOARD, COMPLETE			
		**********			
		< CONNECTOR >			
* CNP801	1-580-166-11	PIN, CONNECTOR (PC BOARD) 5P			
		< DIODE >			
D806	8-719-032-86	LED SEL5420E (R•D•S)			
		< RESISTOR >			
R819	1-249-427-11	CARBON	6.8K	5%	1/4W
R820	1-247-843-11	CARBON	3.3K	5%	1/4W
R821	1-249-420-11	CARBON	1.8K	5%	1/4W
R822	1-249-418-11	CARBON	1.2K	5%	1/4W
R823	1-249-416-11	CARBON	820	5%	1/4W
R824	1-249-415-11	CARBON	680	5%	1/4W
R826	1-249-427-11	CARBON	6.8K	5%	1/4W
R827	1-247-843-11	CARBON	3.3K	5%	1/4W
R828	1-249-420-11	CARBON	1.8K	5%	1/4W
R829	1-249-418-11	CARBON	1.2K	5%	1/4W
R830	1-249-416-11	CARBON	820	5%	1/4W
R831	1-249-415-11	CARBON	680	5%	1/4W
R833	1-249-432-11	CARBON	18K	5%	1/4W
R834	1-249-432-11	CARBON	18K	5%	1/4W
R838	1-249-432-11	CARBON	18K	5%	1/4W
		< SWITCH >			
S808	1-762-196-21	SWITCH, TACTILE (TUNING•TIME SET –)			
S809	1-762-196-21	SWITCH, TACTILE (STANDBY)			
S810	1-762-196-21	SWITCH, TACTILE (SUMMER)			
S811	1-762-196-21	SWITCH, TACTILE (CLOCK)			
S812	1-762-196-21	SWITCH, TACTILE (TIMER)			
S813	1-762-196-21	SWITCH, TACTILE (BAND)			

Ref. No.	Part No.	Description			Remark
S814	1-762-196-21	SWITCH, TACTILE (SLEEP)			
S815	1-762-196-21	SWITCH, TACTILE (PRESET +)			
S816	1-762-196-21	SWITCH, TACTILE (PLAY MODE•MONO/ST ISS)			
S817	1-762-196-21	SWITCH, TACTILE (DSPL ENT MEM)			
S818	1-762-196-21	SWITCH, TACTILE (AMS/SEARCH ▶▶I)			
S819	1-762-196-21	SWITCH, TACTILE (AMS/SEARCH I◀◀)			
S820	1-762-196-21	SWITCH, TACTILE (▶II)			
S821	1-762-196-21	SWITCH, TACTILE (■)			
S822	1-762-196-21	SWITCH, TACTILE (TUNING•TIME SET +)			
S823	1-762-196-21	SWITCH, TACTILE (PRESET –)			
S825	1-762-196-21	SWITCH, TACTILE (SOUND)			
S826	1-762-196-21	SWITCH, TACTILE (FUNCTION)			
**********					
*	A-3322-170-A	MAIN BOARD, COMPLETE **********			
	7-685-646-11	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C1	1-162-851-11	CERAMIC	0.1uF		16V
C2	1-162-213-31	CERAMIC	39PF	5%	50V
C3	1-162-282-31	CERAMIC	100PF	10%	50V
C4	1-162-306-11	CERAMIC	0.01uF	30%	16V
C5	1-162-219-31	CERAMIC	68PF	5%	50V
C6	1-162-306-11	CERAMIC	0.01uF	30%	16V
C7	1-162-306-11	CERAMIC	0.01uF	30%	16V
C8	1-162-851-11	CERAMIC	0.1uF		16V
C9	1-162-306-11	CERAMIC	0.01uF	30%	16V
C10	1-162-306-11	CERAMIC	0.01uF	30%	16V
C11	1-162-290-31	CERAMIC	470PF	10%	50V
⚠C12	1-136-355-11	FILM	330PF	5%	100V
C13	1-162-201-31	CERAMIC	12PF	5%	50V
C14	1-162-199-31	CERAMIC	10PF	5%	50V
C16	1-162-851-11	CERAMIC	0.1uF		16V
C17	1-162-294-31	CERAMIC	0.001uF	10%	50V
C18	1-162-290-31	CERAMIC	470PF	10%	50V
C19	1-162-294-31	CERAMIC	0.001uF	10%	50V
C20	1-162-306-11	CERAMIC	0.01uF	30%	16V
C21	1-162-294-31	CERAMIC	0.001uF	10%	50V
C22	1-162-294-31	CERAMIC	0.001uF	10%	50V
C23	1-162-199-31	CERAMIC	10PF	5%	50V
C24	1-162-215-31	CERAMIC	47PF	5%	50V
C25	1-126-233-11	ELECT	22uF	20%	50V
C26	1-162-306-11	CERAMIC	0.01uF	30%	16V
C27	1-162-301-11	CERAMIC	0.0015uF	30%	16V
C28	1-124-903-11	ELECT	1uF	20%	50V
C29	1-162-851-11	CERAMIC	0.1uF		16V
C30	1-124-907-11	ELECT	10uF	20%	50V
C31	1-124-907-11	ELECT	10uF	20%	50V
C32	1-124-907-11	ELECT	10uF	20%	50V
C33	1-130-485-00	MYLAR	0.015uF	5%	50V
C34	1-130-485-00	MYLAR	0.015uF	5%	50V
C35	1-162-306-11	CERAMIC	0.01uF	30%	16V

Ref. No.	Part No.	Description			Remark
C36	1-124-472-11	ELECT	470uF	20%	10V
C37	1-162-851-11	CERAMIC	0.1uF		16V
C38	1-162-851-11	CERAMIC	0.1uF		16V
C39	1-124-903-11	ELECT	1uF	20%	50V
C40	1-124-907-11	ELECT	10uF	20%	50V
C41	1-162-288-31	CERAMIC	330PF	10%	50V
C42	1-162-305-11	CERAMIC	0.0068uF	20%	16V
C43	1-102-978-00	CERAMIC	220PF	5%	50V
C44	1-162-306-11	CERAMIC	0.01uF	30%	16V
C45	1-162-306-11	CERAMIC	0.01uF	30%	16V
C46	1-162-306-11	CERAMIC	0.01uF	30%	16V
C47	1-162-851-11	CERAMIC	0.1uF		16V
C48	1-162-211-31	CERAMIC	33PF	5%	50V
C49	1-162-203-31	CERAMIC	15PF	5%	50V
C50	1-161-494-00	CERAMIC	0.022uF		25V
C51	1-162-282-31	CERAMIC	100PF	10%	50V
C52	1-162-306-11	CERAMIC	0.01uF	30%	16V
C53	1-162-306-11	CERAMIC	0.01uF	30%	16V
C54	1-162-306-11	CERAMIC	0.01uF	30%	16V
C55	1-162-306-11	CERAMIC	0.01uF	30%	16V
C56	1-162-294-31	CERAMIC	0.001uF	10%	50V
C57	1-162-294-31	CERAMIC	0.001uF	10%	50V
C58	1-162-294-31	CERAMIC	0.001uF	10%	50V
C59	1-162-294-31	CERAMIC	0.001uF	10%	50V
C60	1-124-907-11	ELECT	10uF	20%	50V
C61	1-162-306-11	CERAMIC	0.01uF	30%	16V
C62	1-162-306-11	CERAMIC	0.01uF	30%	16V
C63	1-124-290-00	ELECT	47uF	20%	10V
C64	1-162-306-11	CERAMIC	0.01uF	30%	16V
C65	1-136-177-00	FILM	1uF	5%	50V
C68	1-126-961-11	ELECT	2.2uF	20%	50V
C69	1-124-907-11	ELECT	10uF	20%	50V
C70	1-161-494-00	CERAMIC	0.022uF		25V
C71	1-162-291-31	CERAMIC	560PF	10%	50V
C72	1-161-494-00	CERAMIC	0.022uF		25V
C73	1-126-961-11	ELECT	2.2uF	20%	50V
C74	1-162-211-31	CERAMIC	33PF	5%	50V
C75	1-162-211-31	CERAMIC	33PF	5%	50V
C76	1-162-294-31	CERAMIC	0.001uF	10%	50V
C77	1-162-288-31	CERAMIC	330PF	10%	50V
C78	1-162-291-31	CERAMIC	560PF	10%	50V
C80	1-161-494-00	CERAMIC	0.022uF		25V
C81	1-162-306-11	CERAMIC	0.01uF	30%	16V
C101	1-130-473-00	MYLAR	0.0015uF	5%	50V
C102	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C103	1-104-664-11	ELECT	47uF	20%	10V
C104	1-161-020-11	CERAMIC	0.039uF	10%	16V
C105	1-124-902-00	ELECT	0.47uF	20%	50V
C106	1-124-903-11	ELECT	1uF	20%	50V
C107	1-124-902-00	ELECT	0.47uF	20%	50V
C108	1-130-495-00	MYLAR	0.1uF	5%	50V
C109	1-130-487-00	MYLAR	0.022uF	5%	50V
C110	1-162-306-11	CERAMIC	0.01uF	30%	16V

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description			Remark
C111	1-126-963-11	ELECT	4.7uF	20%	50V
C112	1-124-903-11	ELECT	1uF	20%	50V
C113	1-162-282-31	CERAMIC	100PF	10%	50V
C115	1-124-443-00	ELECT	100uF	20%	10V
C116	1-126-786-11	ELECT	47uF	20%	16V
C117	1-130-497-00	MYLAR	0.15uF	5%	50V
C118	1-126-927-11	ELECT	2200uF	20%	10V
C121	1-162-282-31	CERAMIC	100PF	10%	50V
C123	1-124-907-11	ELECT	10uF	20%	50V
C124	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C125	1-162-294-31	CERAMIC	0.001uF	10%	50V
C201	1-130-473-00	MYLAR	0.0015uF	5%	50V
C202	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C203	1-104-664-11	ELECT	47uF	20%	10V
C204	1-161-020-11	CERAMIC	0.039uF	10%	16V
C205	1-124-902-00	ELECT	0.47uF	20%	50V
C206	1-124-903-11	ELECT	1uF	20%	50V
C207	1-124-902-00	ELECT	0.47uF	20%	50V
C208	1-130-495-00	MYLAR	0.1uF	5%	50V
C209	1-130-487-00	MYLAR	0.022uF	5%	50V
C210	1-162-306-11	CERAMIC	0.01uF	30%	16V
C211	1-126-963-11	ELECT	4.7uF	20%	50V
C212	1-124-903-11	ELECT	1uF	20%	50V
C213	1-162-282-31	CERAMIC	100PF	10%	50V
C215	1-124-443-00	ELECT	100uF	20%	10V
C216	1-126-786-11	ELECT	47uF	20%	16V
C217	1-130-497-00	MYLAR	0.15uF	5%	50V
C218	1-126-927-11	ELECT	2200uF	20%	10V
C221	1-162-282-31	CERAMIC	100PF	10%	50V
C223	1-124-907-11	ELECT	10uF	20%	50V
C224	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C225	1-162-294-31	CERAMIC	0.001uF	10%	50V
C301	1-124-443-00	ELECT	100uF	20%	10V
C302	1-124-443-00	ELECT	100uF	20%	10V
C303	1-126-233-11	ELECT	22uF	20%	50V
C304	1-104-664-11	ELECT	47uF	20%	10V
C305	1-162-294-31	CERAMIC	0.001uF	10%	50V
C307	1-104-666-11	ELECT	220uF	20%	10V
C308	1-162-306-11	CERAMIC	0.01uF	30%	16V
C309	1-162-306-11	CERAMIC	0.01uF	30%	16V
C310	1-124-443-00	ELECT	100uF	20%	10V
C311	1-124-443-00	ELECT	100uF	20%	10V
C312	1-104-664-11	ELECT	47uF	20%	10V
C313	1-124-472-11	ELECT	470uF	20%	10V
C314	1-162-851-11	CERAMIC	0.1uF		16V
C315	1-124-472-11	ELECT	470uF	20%	10V
C316	1-162-306-11	CERAMIC	0.01uF	30%	16V
C317	1-124-564-11	ELECT	4700uF	20%	25V
C318	1-162-306-11	CERAMIC	0.01uF	30%	16V
C319	1-124-907-11	ELECT	10uF	20%	50V
C320	1-104-664-11	ELECT	47uF	20%	25V
C321	1-126-233-11	ELECT	22uF	20%	50V
C322	1-162-284-31	CERAMIC	150PF	10%	50V

Ref. No.	Part No.	Description			Remark
C323	1-124-907-11	ELECT	10uF	20%	50V
C324	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C325	1-162-294-31	CERAMIC	0.001uF	10%	50V
C326	1-124-902-00	ELECT	0.47uF	20%	50V
C327	1-126-963-11	ELECT	4.7uF	20%	50V
C328	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C329	1-104-664-11	ELECT	47uF	20%	10V
C330	1-162-306-11	CERAMIC	0.01uF	30%	16V
C331	1-124-443-00	ELECT	100uF	20%	10V
C332	1-130-481-00	MYLAR	0.0068uF	5%	50V
C334	1-130-471-00	MYLAR	0.001uF	5%	50V
C335	1-130-471-00	MYLAR	0.001uF	5%	50V
C336	1-124-907-11	ELECT	10uF	20%	50V
C337	1-104-666-11	ELECT	220uF	20%	10V
C338	1-124-907-11	ELECT	10uF	20%	50V
C339	1-124-907-11	ELECT	10uF	20%	50V
C340	1-124-478-11	ELECT	100uF	20%	25V
C341	1-126-963-11	ELECT	4.7uF	20%	50V
C342	1-162-851-11	CERAMIC	0.1uF		16V
C344	1-162-851-11	CERAMIC	0.1uF		16V
C345	1-162-294-31	CERAMIC	0.001uF	10%	50V
C346	1-162-306-11	CERAMIC	0.01uF	30%	16V
C351	1-162-294-31	CERAMIC	0.001uF	10%	50V
C352	1-126-963-11	ELECT	4.7uF	20%	50V
C353	1-126-963-11	ELECT	4.7uF	20%	50V
C354	1-162-306-11	CERAMIC	0.01uF	30%	16V
C355	1-162-851-11	CERAMIC	0.1uF		16V
C356	1-162-851-11	CERAMIC	0.1uF		16V
C357	1-162-306-11	CERAMIC	0.01uF	30%	16V
C358	1-124-903-11	ELECT	1uF	20%	50V
C359	1-104-664-11	ELECT	47uF	20%	10V
C360	1-162-851-11	CERAMIC	0.1uF		16V
C361	1-162-851-11	CERAMIC	0.1uF		16V
C362	1-162-306-11	CERAMIC	0.01uF	30%	16V
C363	1-124-472-11	ELECT	470uF	20%	10V
C364	1-161-494-00	CERAMIC	0.022uF		25V
		< FILTER >			
CF1	1-781-406-11	FILTER, CERAMIC			
CF2	1-781-406-11	FILTER, CERAMIC			
CF3	1-781-171-11	DISCRIMINATOR, CERAMIC			
		< ENCAPSULATED COMPONENT >			
CFT1	1-233-885-11	ENCAPSULATED COMPONENT			
		< CONNECTOR >			
CNP1	1-778-310-11	PLUG, CONNECTOR 2P (MW/LW)			
CNP2	1-694-215-11	TERMINAL BOARD (FM)			
* CNP301	1-564-519-11	PLUG, CONNECTOR 4P			
* CNP302	1-580-165-11	PIN, CONNECTOR (PC BOARD) 4P			
CNP303	1-695-346-21	PIN, CONNECTOR (PC BOARD) 23P			
* CNP304	1-580-159-11	PIN, CONNECTOR (PC BOARD) 7P			

Ref. No.	Part No.	Description	Remark
* CNP305	1-564-506-11	PLUG, CONNECTOR 3P	
* CNP306	1-564-509-11	PLUG, CONNECTOR 6P	
* CNP307	1-564-508-11	PLUG, CONNECTOR 5P	
* CNP312	1-564-187-00	PIN, CONNECTOR	
		< TRIMMER >	
CT1	1-141-459-11	CAP, TRIMMER (SEAL TYPE) 45PF	
CT2	1-141-486-11	CAP, ADJ 10PF	
CT3	1-141-459-11	CAP, TRIMMER (SEAL TYPE) 45PF	
CT4	1-141-411-11	CAP, ADJ 20PF	
		< DIODE >	
D1	8-719-991-33	DIODE 1SS133T-77	
D2	8-719-991-33	DIODE 1SS133T-77	
D3	8-719-050-69	DIODE KV1520N	
D4	8-719-991-33	DIODE 1SS133T-77	
D5	8-719-991-33	DIODE 1SS133T-77	
D6	8-719-991-33	DIODE 1SS133T-77	
D8	8-719-991-33	DIODE 1SS133T-77	
D9	8-719-991-33	DIODE 1SS133T-77	
D10	8-719-991-33	DIODE 1SS133T-77	
D301	8-719-991-33	DIODE 1SS133T-77	
D302	8-719-991-33	DIODE 1SS133T-77	
D304	8-719-991-33	DIODE 1SS133T-77	
D305	8-719-991-33	DIODE 1SS133T-77	
D306	8-719-109-89	DIODE RD5.6ESB2	
D307	8-719-109-97	DIODE RD6.8ES-B2	
D308	8-719-991-33	DIODE 1SS133T-77	
D310	8-719-921-40	DIODE MTZJ-4.7C	
D311	8-719-991-33	DIODE 1SS133T-77	
D312	8-719-109-97	DIODE RD6.8ES-B2	
		< IC >	
IC1	8-759-644-86	IC TA2104BN	
IC2	8-759-549-77	IC BH2615S	
IC3	8-759-541-48	IC BU1924	
IC301	8-759-264-71	IC TA2068N	
IC302	8-759-540-49	IC BH3854AFS	
IC303	8-759-426-51	IC BA5417	
		< TERMINAL BOARD >	
* J301	1-537-240-41	TERMINAL BOARD (CHECKER PIN) (SPEAKER)	
		< COIL >	
L1	1-410-521-11	INDUCTOR 100uH	
L2	1-408-599-31	INDUCTOR 4.7uH	
L3	1-416-785-11	COIL, MW ANTENNA	
L4	1-416-786-11	COIL, LW ANTENNA	
L5	1-411-199-31	COIL, MW/LW OSC	
L6	1-410-509-11	INDUCTOR 10uH	
L7	1-410-521-11	INDUCTOR 100uH	
L8	1-408-599-31	INDUCTOR 4.7uH	
L9	1-410-089-11	INDUCTOR 15mH	

Ref. No.	Part No.	Description	Remark
L10	1-410-525-11	INDUCTOR 220uH	
L11	1-410-521-11	INDUCTOR 100uH	
L12	1-410-521-11	INDUCTOR 100uH	
L13	1-410-521-11	INDUCTOR 100uH	
L14	1-414-142-11	INDUCTOR 1uH	
L15	1-233-306-31	ENCAPSULATED COMPONENT	
L102	1-410-397-21	INDUCTOR 1.1uH	
L103	1-409-932-11	COIL, AIR-CORE	
L202	1-410-397-21	INDUCTOR 1.1uH	
L203	1-409-932-11	COIL, AIR-CORE	
L302	1-412-045-11	INDUCTOR 2.2mH	
		< TRANSISTOR >	
Q1	8-729-119-32	FET 2SK193	
Q2	8-729-922-66	TRANSISTOR 2SC2410SN	
Q3	8-729-905-50	TRANSISTOR DTC343TS	
Q4	8-729-178-62	TRANSISTOR 2SC2786-L	
Q5	8-729-922-66	TRANSISTOR 2SC2410SN	
Q6	8-729-902-80	TRANSISTOR DTA114YS	
Q7	8-729-902-80	TRANSISTOR DTA114YS	
Q9	8-729-922-66	TRANSISTOR 2SC2410SN	
Q10	8-729-902-80	TRANSISTOR DTA114YS	
Q11	8-729-029-72	TRANSISTOR DTC114YSA	
Q12	8-729-029-72	TRANSISTOR DTC114YSA	
Q13	8-729-029-72	TRANSISTOR DTC114YSA	
Q14	8-729-029-72	TRANSISTOR DTC114YSA	
Q15	8-729-902-80	TRANSISTOR DTA114YS	
Q16	8-729-012-83	FET 2SK679A	
Q17	8-729-106-07	FET 2SK514-H	
Q18	8-729-119-32	FET 2SK193	
Q19	8-729-029-72	TRANSISTOR DTC114YSA	
Q20	8-729-029-72	TRANSISTOR DTC114YSA	
Q21	8-729-902-80	TRANSISTOR DTA114YS	
Q22	8-729-905-50	TRANSISTOR DTC343TS	
Q301	8-729-902-80	TRANSISTOR DTA114YS	
Q302	8-729-029-94	TRANSISTOR DTC143TSA	
Q303	8-729-281-53	TRANSISTOR 2SC1815-GR	
Q304	8-729-230-45	TRANSISTOR 2SC2458-YGR	
Q305	8-729-230-45	TRANSISTOR 2SC2458-YGR	
Q306	8-729-195-23	TRANSISTOR 2SA952	
Q307	8-729-195-23	TRANSISTOR 2SA952	
Q308	8-729-021-82	TRANSISTOR 2SD2396K	
Q309	8-729-230-45	TRANSISTOR 2SC2458-YGR	
Q310	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q311	8-729-902-80	TRANSISTOR DTA114YS	
Q312	8-729-902-80	TRANSISTOR DTA114YS	
Q313	8-729-230-45	TRANSISTOR 2SC2458-YGR	
Q314	8-729-200-39	TRANSISTOR 2SC2236-Y	
		< RESISTOR >	
R1	1-249-422-11	CARBON 2.7K 5% 1/4W	
R2	1-249-425-11	CARBON 4.7K 5% 1/4W	
R3	1-249-425-11	CARBON 4.7K 5% 1/4W	

MAIN

Ref. No.	Part No.	Description			Remark
R4	1-249-425-11	CARBON	4.7K	5%	1/4W
R5	1-249-425-11	CARBON	4.7K	5%	1/4W
R6	1-249-426-11	CARBON	5.6K	5%	1/4W
R7	1-247-887-00	CARBON	220K	5%	1/4W
R8	1-247-887-00	CARBON	220K	5%	1/4W
R9	1-249-425-11	CARBON	4.7K	5%	1/4W
R10	1-249-429-11	CARBON	10K	5%	1/4W
R11	1-249-403-11	CARBON	68	5%	1/4W
R13	1-249-417-11	CARBON	1K	5%	1/4W
R14	1-249-411-11	CARBON	330	5%	1/4W
R15	1-249-417-11	CARBON	1K	5%	1/4W
R16	1-247-791-00	CARBON	22	5%	1/4W
R17	1-249-419-11	CARBON	1.5K	5%	1/4W
R18	1-249-437-11	CARBON	47K	5%	1/4W
R19	1-249-411-11	CARBON	330	5%	1/4W
R20	1-249-429-11	CARBON	10K	5%	1/4W
R21	1-249-429-11	CARBON	10K	5%	1/4W
R22	1-249-424-11	CARBON	3.9K	5%	1/4W
R23	1-249-429-11	CARBON	10K	5%	1/4W
R24	1-249-424-11	CARBON	3.9K	5%	1/4W
R25	1-247-843-11	CARBON	3.3K	5%	1/4W
R26	1-249-421-11	CARBON	2.2K	5%	1/4W
R27	1-249-406-11	CARBON	120	5%	1/4W
R28	1-249-429-11	CARBON	10K	5%	1/4W
R29	1-249-429-11	CARBON	10K	5%	1/4W
R30	1-249-429-11	CARBON	10K	5%	1/4W
R31	1-249-437-11	CARBON	47K	5%	1/4W
R32	1-249-429-11	CARBON	10K	5%	1/4W
R33	1-249-441-11	CARBON	100K	5%	1/4W
R34	1-249-417-11	CARBON	1K	5%	1/4W
R35	1-249-429-11	CARBON	10K	5%	1/4W
R36	1-249-429-11	CARBON	10K	5%	1/4W
R37	1-249-426-11	CARBON	5.6K	5%	1/4W
R38	1-249-437-11	CARBON	47K	5%	1/4W
R39	1-249-412-11	CARBON	390	5%	1/4W
R40	1-249-415-11	CARBON	680	5%	1/4W
R41	1-249-417-11	CARBON	1K	5%	1/4W
R42	1-247-843-11	CARBON	3.3K	5%	1/4W
R43	1-249-421-11	CARBON	2.2K	5%	1/4W
R44	1-249-417-11	CARBON	1K	5%	1/4W
R45	1-247-843-11	CARBON	3.3K	5%	1/4W
R46	1-249-417-11	CARBON	1K	5%	1/4W
R47	1-249-417-11	CARBON	1K	5%	1/4W
R48	1-249-421-11	CARBON	2.2K	5%	1/4W
R49	1-249-421-11	CARBON	2.2K	5%	1/4W
R50	1-249-441-11	CARBON	100K	5%	1/4W
R51	1-249-437-11	CARBON	47K	5%	1/4W
R52	1-249-437-11	CARBON	47K	5%	1/4W
R53	1-247-863-00	CARBON	22K	5%	1/4W
R54	1-249-404-00	CARBON	82	5%	1/4W
R101	1-249-431-11	CARBON	15K	5%	1/4W
R102	1-249-404-00	CARBON	82	5%	1/4W
R103	1-247-881-00	CARBON	120K	5%	1/4W
R104	1-247-843-11	CARBON	3.3K	5%	1/4W
R105	1-247-815-00	CARBON	220	5%	1/4W
R107	1-249-431-11	CARBON	15K	5%	1/4W
R108	1-249-421-11	CARBON	2.2K	5%	1/4W
R109	1-249-417-11	CARBON	1K	5%	1/4W
R110	1-249-414-11	CARBON	560	5%	1/4W
R111	1-249-425-11	CARBON	4.7K	5%	1/4W
R112	1-249-426-11	CARBON	5.6K	5%	1/4W
R113	1-249-431-11	CARBON	15K	5%	1/4W
R114	1-249-417-11	CARBON	1K	5%	1/4W
R115	1-249-406-11	CARBON	120	5%	1/4W
R119	1-249-385-11	CARBON	2.2	5%	1/6W
R121	1-249-437-11	CARBON	47K	5%	1/4W
R201	1-249-431-11	CARBON	15K	5%	1/4W
R202	1-249-404-00	CARBON	82	5%	1/4W
R203	1-247-881-00	CARBON	120K	5%	1/4W
R204	1-247-843-11	CARBON	3.3K	5%	1/4W
R205	1-247-815-00	CARBON	220	5%	1/4W
R207	1-249-431-11	CARBON	15K	5%	1/4W
R208	1-249-421-11	CARBON	2.2K	5%	1/4W
R209	1-249-417-11	CARBON	1K	5%	1/4W
R210	1-249-414-11	CARBON	560	5%	1/4W
R211	1-249-425-11	CARBON	4.7K	5%	1/4W
R212	1-249-426-11	CARBON	5.6K	5%	1/4W
R213	1-249-431-11	CARBON	15K	5%	1/4W
R214	1-249-417-11	CARBON	1K	5%	1/4W
R215	1-249-406-11	CARBON	120	5%	1/4W
R218	1-249-404-00	CARBON	82	5%	1/4W
R219	1-249-385-11	CARBON	2.2	5%	1/6W
R221	1-249-437-11	CARBON	47K	5%	1/4W
R301	1-247-903-00	CARBON	1M	5%	1/4W
R302	1-249-399-11	CARBON	33	5%	1/4W
R303	1-249-429-11	CARBON	10K	5%	1/4W
R304	1-249-417-11	CARBON	1K	5%	1/4W
R305	1-249-403-11	CARBON	68	5%	1/4W
R306	1-249-435-11	CARBON	33K	5%	1/4W
R307	1-249-389-11	CARBON	4.7	5%	1/4W
R308	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-401-11	CARBON	47	5%	1/4W
R310	1-249-404-00	CARBON	82	5%	1/4W
R311	1-249-419-11	CARBON	1.5K	5%	1/4W
R312	1-249-429-11	CARBON	10K	5%	1/4W
R313	1-249-437-11	CARBON	47K	5%	1/4W
R314	1-249-437-11	CARBON	47K	5%	1/4W
R315	1-260-078-11	CARBON	18	5%	1/2W
R316	1-249-410-11	CARBON	270	5%	1/4W
R318	1-260-076-11	CARBON	10	5%	1/2W
R319	1-249-420-11	CARBON	1.8K	5%	1/4W
R320	1-249-429-11	CARBON	10K	5%	1/4W
R321	1-249-432-11	CARBON	18K	5%	1/4W
R322	1-249-425-11	CARBON	4.7K	5%	1/4W
R323	1-247-903-00	CARBON	1M	5%	1/4W
R324	1-247-807-11	CARBON	100	5%	1/4W

Ref. No.	Part No.	Description			Remark
R325	1-249-429-11	CARBON	10K	5%	1/4W
R326	1-249-429-11	CARBON	10K	5%	1/4W
R327	1-249-429-11	CARBON	10K	5%	1/4W
R329	1-249-417-11	CARBON	1K	5%	1/4W
R330	1-247-889-00	CARBON	270K	5%	1/4W
R331	1-249-427-11	CARBON	6.8K	5%	1/4W
R333	1-249-427-11	CARBON	6.8K	5%	1/4W
R334	1-249-441-11	CARBON	100K	5%	1/4W
R335	1-249-441-11	CARBON	100K	5%	1/4W
R336	1-249-429-11	CARBON	10K	5%	1/4W
R337	1-249-439-11	CARBON	68K	5%	1/4W
R338	1-249-425-11	CARBON	4.7K	5%	1/4W
R339	1-249-429-11	CARBON	10K	5%	1/4W
R341	1-247-807-11	CARBON	100	5%	1/4W
R342	1-247-899-11	CARBON	680K	5%	1/4W
R343	1-249-418-11	CARBON	1.2K	5%	1/4W
R345	1-249-404-00	CARBON	82	5%	1/4W
R346	1-247-807-11	CARBON	100	5%	1/4W
R348	1-260-064-11	CARBON	1	5%	1/2W
R349	1-249-431-11	CARBON	15K	5%	1/4W
R350	1-249-421-11	CARBON	2.2K	5%	1/4W
R351	1-249-421-11	CARBON	2.2K	5%	1/4W
		< SWITCH >			
S824	1-762-871-11	SWITCH, KEY BOARD (RESET)			
		< TRANSFORMER >			
T301	1-433-268-00	TRANSFORMER, BIAS OSCILLATOR			
		< TUNER >			
* TU1	1-693-378-11	TUNER UNIT			
		< VIBRATOR >			
X1	1-760-130-11	VIBRATOR, CRYSTAL (75kHz)			
X2	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz)			
**********					
*	1-674-304-11	POWER BOARD **********			
	1-533-217-31	HOLDER, FUSE			
		< CAPACITOR >			
C901	1-164-159-21	CERAMIC	0.1uF		50V
C902	1-164-159-21	CERAMIC	0.1uF		50V
C903	1-164-159-21	CERAMIC	0.1uF		50V
C904	1-164-159-21	CERAMIC	0.1uF		50V
C905	1-164-159-21	CERAMIC	0.1uF		50V
C906	1-124-564-11	ELECT	4700uF	20%	25V

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
* CNP901	1-564-518-11	PLUG, CONNECTOR 3P			
* CNP902	1-580-230-31	PIN, CONNECTOR (PC BOARD) 2P			
		< DIODE >			
D901	8-719-902-17	DIODE U15G			
D902	8-719-902-17	DIODE U15G			
D903	8-719-902-17	DIODE U15G			
D904	8-719-902-17	DIODE U15G			
D905	8-719-991-33	DIODE 1SS133T-77			
		< FUSE >			
⚠F901	1-532-500-31	FUSE, TIME-LAG (T630mAL/250V)			
⚠F902	1-532-465-31	FUSE, TIME-LAG (T3.15AL/250V)			
		< RESISTOR >			
R901	1-247-815-00	CARBON	220	5%	1/4W
		< TRANSFORMER >			
⚠T901	1-431-972-11	TRANSFORMER, POWER			
**********					
*	1-674-298-11	REC SW BOARD **********			
		< CONNECTOR >			
* CNP311	1-580-165-11	PIN, CONNECTOR (PC BOARD) 4P			
		< SWITCH >			
SW301	1-762-565-11	SWITCH, SLIDE (REC/PB)			
**********					
		MISCELLANEOUS **********			
⚠3	1-575-651-21	CORD, POWER			
62	1-791-980-11	CABLE, FFC 23P			
103	1-452-732-11	MAGNET			
112	1-769-824-11	WIRE (FLAT TYPE) (16 CORE)			
⚠353	8-848-483-05	PICK-UP, OPTICAL KSS-213C			
355	X-2626-202-1	CHASSIS ASSY (MB), MOTOR (SPINDLE) (INCLUDING M701)			
HE301	1-543-876-11	HEAD (ERASE)			
HRP301	1-543-964-12	HEAD, MAGNETIC (RECORD/PLAYBACK)			
M301	X-3365-538-1	MOTOR ASSY (CAPSTAN/REEL)			
M702	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)			
S301	1-571-556-11	SWITCH, LEAF (MD POWER)			
S302	1-571-556-11	SWITCH, LEAF (MD PLAY)			
SP301	1-505-395-21	SPEAKER (10cm) (L-CH)			
SP302	1-505-395-21	SPEAKER (10cm) (R-CH)			
SW701	1-692-960-11	SWITCH, PUSH (1 KEY) (CD DOOR)			
**********					

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-501-594-11	ANTENNA (FM)	
	1-754-034-11	ANTENNA, LOOP (MW/LW)	
	3-027-153-11	LID, BATTERY CASE (FOR RMT-C107AD)	
*	3-704-285-01	BAG (STANDARD), PROTECTION	
	3-867-445-11	MANUAL, INSTRUCTION (ENGLISH,SPANISH)	(AEP,UK)
	3-867-445-21	MANUAL, INSTRUCTION (FRENCH,GERMAN)	(AEP)
	3-867-445-31	MANUAL, INSTRUCTION (DUTCH,PORTUGUESE)	(AEP)
	3-867-445-41	MANUAL, INSTRUCTION (ITALIAN) (IT)	
	3-867-445-51	MANUAL, INSTRUCTION (SWEDISH,FINNISH)	(CET)
	3-867-445-61	MANUAL, INSTRUCTION (POLISH,CZECH,	HUNGARIAN) (CET)
	A-3250-959-A	REMOTE COMMANDER RMT-C107AD	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-685-646-11	SCREW +BVTP 3X8 TYPE2 N-S	
#3	7-685-663-71	SCREW +BVTP 4X16 TYPE2 N-S	
#4	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S	
#5	7-685-860-04	SCREW +BVTT 2.6X4 (S)	
#6	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#7	7-685-851-04	SCREW +BVTT 2X4 (S)	
#8	7-685-861-01	SCREW +BVTT 2.6X5 (S)	
#9	7-685-781-09	SCREW +PTT 2X4 (S)	
#10	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	
#11	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S	
#12	7-628-254-05	SCREW +PS 2.6X5	

99G0451-1
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